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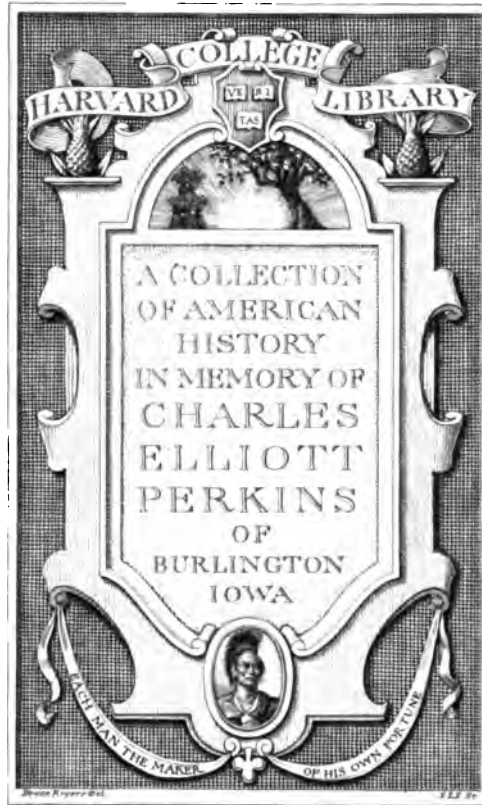
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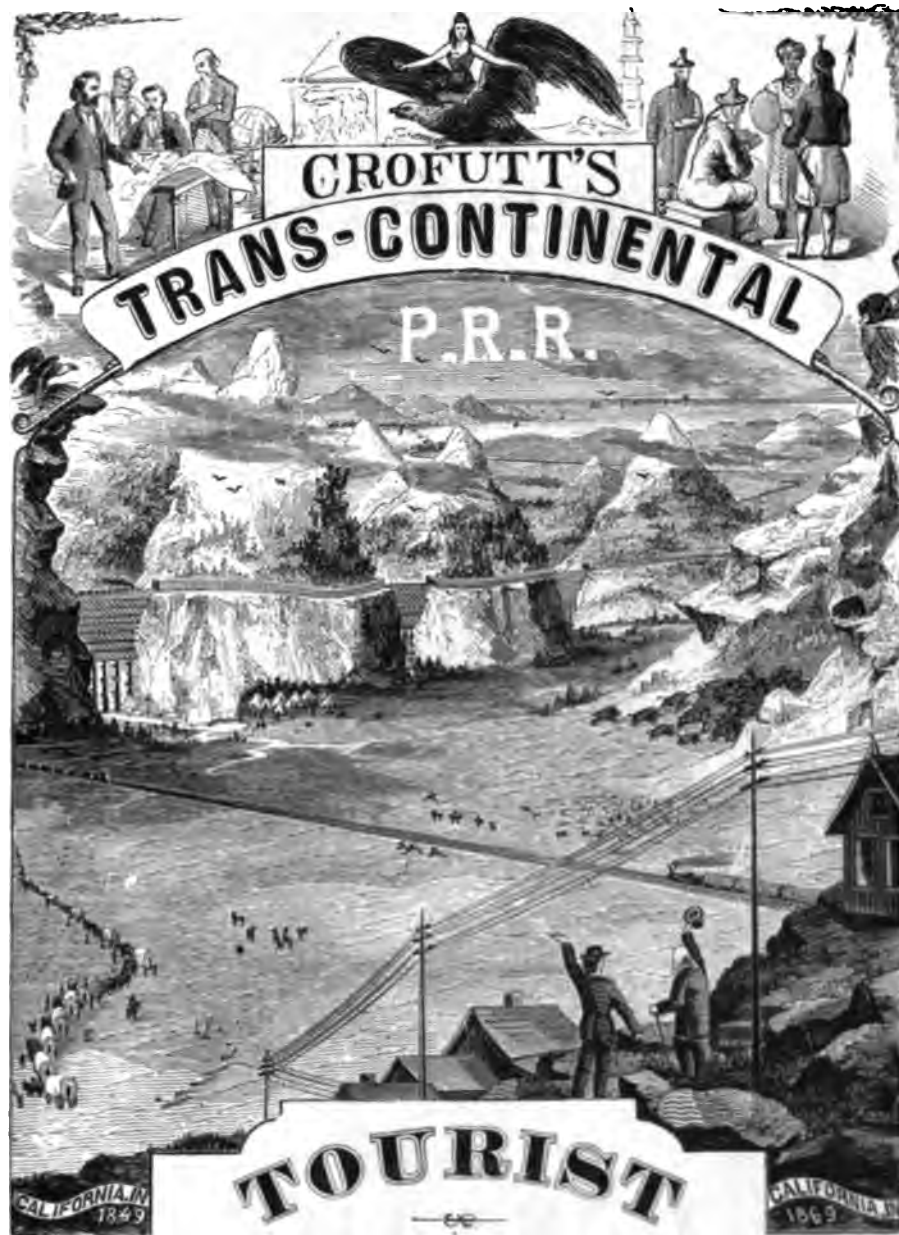
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*In fact, to Tell you What is worth Seeing—Where to See it—Where to go—How to go—
and whom to Stop with while Passing over the*

UNION PACIFIC RAILROAD, CENTRAL PACIFIC RAILROAD OF CALIFORNIA,

THEIR BRANCHES AND CONNECTIONS BY STAGE AND WATER,

FROM THE ATLANTIC TO THE PACIFIC OCEAN.

ILLUSTRATED.

SEVENTH VOLUME, SIXTH ANNUAL REVISE.



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JUL 1 1914

CHARLES ELLIOTT PERKINS
MEMORIAL COLLECTION

PREFACE.

VOLUME VII.

Anybody can write a book—but to write a “preface”—ah! there’s the rub.

To produce a *hiyu telicum* preface is no easy matter, and we would dodge the task were it not necessary for us, while among the Romans, to conform to Roman customs. We know a preface is usually looked upon by the public in the light of an apology, wherein the author is expected to explain, 1st.—Why he did not do better; and, 2d.—Why he wrote at all. In answer to these, we would say:

FIRST.—We have spared neither time, pains or money to make this a perfect book. Our statements are *concise, plain, unadorned*, and, we believe, *truthful in every particular*. Yet, we would shudder at the charge of being *absolutely* perfect, as we do not want to chance the consequences.

SECOND.—We wrote this book for *Money and Love*. For *MONEY* to help the poor—not that we need a cent. For *LOVE* of the Far Western Country—the land of the “Golden Fleece.” For love of its broad plains and lofty mountains, its free pure air, healthful climate, magnificent scenery, unrivalled resources, and its unaffected, whole-souled people.

The descriptions cover a scope of country over two thousand miles in length, and hundreds of miles in width; a vast empire as it were; a country that only a few years ago was almost wholly unexplored and unknown to the white race. But since the completion of the Pacific Railroad it has been occupied by over half a million of the most adventurous, active, honest, and progressive white people that the world can produce—people that are building cities, towns and villages as though by magic; prospecting, discovering and developing the great treasure chambers of the continent, extending our grand system of railroads and telegraphs all over the country, like a vast net-work; or engaged in the cultivation of the inexhaustible soil, which is literally causing the wilderness to “blossom like the rose.” Where such mighty changes are taking place *so rapidly*, it would indeed be a wonder if *some* of the numberless improvements that are in progress were not omitted. Yet we think there are few, if any, of sufficient importance to be of interest to the tourist, but what some mention can be found at the proper place in this volume; but, from the limited space, the descriptions are necessarily short, only touching on the most important facts.

FINALLY, we shall take the reader with us from the *far* East to the *far* West—from the Atlantic to the Pacific; from where the sun rises out of the water to where it sets in the water; and leave him facing the Orient of ancient story.

Price, Flexible Cloth, \$1.50. }
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GEO. A. CROFUTT,

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PASSAGE TICKET MEMORANDA.

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BIRD'S EYE VIEW OF THE PLAINS—From the crossing of Loup Fork River, 94 miles west of Omaha.

OCEAN TO OCEAN.

WEST TO THE MISSOURI RIVER.

TEN HINTS BEFORE WE START:

1. It is not our province to recommend any particular line east of the Missouri River; each has its own peculiar attractions. By reference to the advertisements on the maps of the TOURIST, the announcement of some of the principal lines, with their special advantages, will be found, and we would advise travelers to read them carefully, then decide for themselves the route they wish to take before purchasing tickets.

2. Be particular to choose such routes as will enable you to visit the cities, towns, and objects of interest that you desire to, without annoyance or needless expense.

3. Never purchase your tickets from a stranger in the street, but over the counter of some responsible company. When purchasing tickets, look well to the date, and notice that each ticket is stamped at the time you receive them. Then make a memorandum on the opposite page of the TOURIST, of the name of the company issuing the ticket, by what route, and the number and *class* of the ticket. In case of loss, make the fact known at the office of the company, showing the memorandum as above described, and steps can be taken immediately to recover the ticket if it was lost or stolen, or to prevent its being used by any one else. By attention to such slight and apparently unimportant matters as these, travelers may escape such swindles as are too likely to be practiced upon them, and avoid much possible loss and inconvenience.

4. Before starting out, provide yourself with at least one third more money than your most liberal estimate would seem to require, and do not lend to strangers or be induced to play at their games.

5. Endeavor to be at the depot at least fifteen minutes before the train leaves, to avoid a rush.

6. You will need to show your ticket to the baggage-man when you ask him to check your baggage; then see that it is properly checked, and make a memorandum of the number of the check on the same page with your ticket; this done, you will need to give it no further attention until you get to the place to which it is checked, when you will need to look after it.

7. Persons who accompany the conductor through the cars, calling for baggage to be delivered at the hotels or other places, are generally reliable, but the passenger, if in doubt, should inquire of the conductor, and then be careful to compare the number of the ticket received from the agent in exchange for his check, to be sure that they are alike.

8. Do not seek to attract attention; remember only bores are intrusive and boisterous.

9. "Please" and "thanks" are towers of strength. Do not let the servants excel you in patience and politeness.

10. *And finally*—Do not judge of the people you meet by their clothes, or think you are going west to find fools; as a millionaire may be in buckskin and a college graduate in rags.

AROUND THE WORLD.—Passengers can procure tickets, if they choose, for a trip around the world. The route will be found on the large colored map of the world in the back part of this book. The price of tickets is now \$1,105, *via* China and Japan, and \$985 *via* Australia and the Oriental line of steamships. The journey can be broken at any point of interest *en route*, and resumed at pleasure. Only a short time has elapsed since a journey to China and India was only one remove from leaving the world altogether. A traveler or business man who, a few years ago, went to Hong Kong or Calcutta, made his will and arranged his affairs with a certain knowledge that at least a year or two of his life was required, and the possibilities were against his returning even then. To-day he packs his portmanteau for a run around the globe, transacts important business, and is back in his office in New York, San Francisco or London, in ninety days, after having enjoyed an agreeable tour, in which he is always in communication with the chief centres of business by telegraph and steam post routes.

Not only has sea navigation been improved by the advances in naval architecture, and the greater perfection in ships' material, construction, and motive power, but the vast distances of land travel have been decidedly shortened both in space and time by the development of land transportation. Mountains and valleys have been brought to a proper grade for immense lines of railway on both continents. The difficulties overcome and the energy and enterprise exhibited by the building of more than 5,000 miles of English railway in India, connecting the principal cities of that great peninsula, and the completion of the Suez Canal, have only been equaled by the construction of the great Union and Central Pacific Railroad across our continent, which brings the city of San Francisco, on the Pacific Coast, within less than a week's comfortable journey of the Atlantic sea-ports of New York, Philadelphia, and Boston, which heretofore took months to accomplish.

Passengers from the Eastern States bound for the *Pacific Coast* can have their choice of four American "Trunk Lines," from the Atlantic sea-board, which connect with the Grand Trans-Continental Railroad at Council Bluffs or Omaha. Sleeping cars are run on all through trains—most luxuriant palaces. The charges are *extra*, or about \$3 per day—24 hours. Only first-class passengers can procure berths in the sleeping cars. These four lines are the "New York Central and Hudson River Railroad," the "Erie Railway" line, the "Pennsylvania Central," and the "Baltimore and Ohio Railroad."

The railroad connections by these lines are almost innumerable, extending to almost every city, town, and village in nearly every State and Territory in the United States; the regular through trains of either line make close and sure connections with the Pacific road, while the fares are the same.

BOSTON.—Passengers can go by "all rail" from Boston, via either Albany direct, or via New York city, or they can take the steamships on Long Island Sound, of which there are three first-class lines, comprising some of the finest boats in the world.

NEW YORK.—Passengers from this city, who desire to visit NIAGARA, whose thundering cataracts, in volume of waters, far surpass all other waterfalls in the known world, and also view the great Suspension Bridge over Niagara river—which undoubtedly, is one of the finest structures of its kind in this country—can have choice of two trunk lines.

ROUTE ONE.—The New York Central and Hudson River line passes up the glorious old Hudson, the magnificent river upon the bosom of which Fulton launched his "experiment," the *first* steamboat ever constructed. This road is built almost on the river brink, upon the eastern bank, which slopes back in irregular terraces, presenting from the car window in summer—with its groves, parks, gardens, orchards, and alternate rich fields, with here and there, peeping out from beneath the trees, the magnificent country villa of the nabob, the substantial residence of the wealthy merchant, or the neat and tasteful cottage of the well-to-do farmer—one of the finest panoramic views in the whole country. This line passes through Central New York—the garden of the State—via Albany, Rochester, and Buffalo.

The Western *direct connections* of the "New York Central," are at Suspension Bridge (Niagara)—the "Great Western and Michigan Central," via Detroit, at Buffalo—the "Lake Shore and Michigan Southern," via Dunkirk and Cleveland.

ROUTE TWO.—The Erie Railway line traverses the southern portion of the State of New York, via Binghamton, Corning, and Buffalo. The track of the "Erie" is the *broadest* gauge in the country; the cars are very wide and commodious. This route affords the traveler a view, while crossing and re-crossing the Delaware, of scenery and engineering skill, at once grand, majestic, and wonderful. The direct Western connection of the "Erie" is the "Lake Shore and Michigan Southern," at Dunkirk and Buffalo; the "Great Western and Michigan Central," at Suspension Bridge, and the "Atlantic and Great Western," at Corry.

ROUTE THREE.—Via "Pennsylvania Central," to PHILADELPHIA, HARRISBURG—the capital of the State—to PITTSBURG—the most extensive iron manufacturing city in the United States.

At Pittsburg, connections are made with the "Pittsburg, Fort Wayne, and Chicago Railroad," and with many other roads running in every direction.

ROUTE FOUR—via the cities of

PHILADELPHIA—and BALTIMORE.

By taking the Baltimore and Ohio Railroad, passengers are afforded an opportunity of visiting the capitol of Washington, and thence, via Harper's Ferry, "over the mountains" to Wheeling. It is said by some travelers that the scenery by this line is unsurpassed by any on the continent. From

CINCINNATI—passengers can have choice of several first-class competing lines, via either Chicago or St. Louis, or via the Burlington Route—direct, via Burlington, Iowa. From

CHICAGO—there are three lines. For special advantages we must again refer to the map—the Chicago and North-western R. R., via Clinton and Cedar Rapids; the Chicago, Rock Island, and Pacific R. R., via Rock Island, Davenport, and Des Moines, and the Burlington Route, via Chicago, Burlington and Quincy and the Burlington and Missouri River R. R's. From

ST. LOUIS—Passengers can take either the North Missouri or the Missouri Pacific R. R., via Kansas City, and the Kansas City, St. Joseph, and Council Bluffs R. R., via St. Joseph, Mo.

We have only enumerated the principal lines centering at the Missouri River Bridge transfer—at Council Bluffs, opposite the city of Omaha.

COUNCIL BLUFFS—is situated in the western portion of the State of Iowa, about three miles from the Missouri river, at the foot of the bluffs. It is the county seat of Pottawattomie county, and contains a population of about 12,000. It is four miles distant from Omaha, Nebraska, with which city it is connected by steam and horse railroads, as well as by ferry-boats.

Council Bluffs is one of the oldest towns in western Iowa. As early as 1846, it was known as a Mormon settlement, by the name of Kaneshville, which it retained until 1853, when the Legislature granted a charter designating the place as the city of Council Bluffs. The explorers, Lewis and Clark, held a council with the Indians here in 1804, and named it Council Bluffs.

The railroad interests are almost identical with those of her "twin sister," Omaha, with which city she is connected by the railroad bridge over the Missouri river.

Council Bluffs includes within her corporate limits 24 square miles. The buildings are good; the town presents a neat, tasty, and, withal, a *lively* appearance; street-cars traverse the principal streets; churches and schools are numerous; the latter comprise one seminary for young ladies, one high school, eight private schools, and fourteen district or free schools. The State Institute for the Deaf and Dumb is located near the city, to the south-east. Hotels are numerous, Ogden House is the principal one.

There are over 200 business houses in the city, representing all branches. Their trade extends westward up and down the river, and over a large portion of the country eastward.

There are two daily newspapers, the *Nonpareil* and the *Globe*. These papers are all zealous advocates of home interests.

The surrounding country is rich in the chief wealth of a nation—agriculture. No better farming land is found than Western Iowa possesses.

Leaving Council Bluffs, the train speeds across the low, broad bottom towards the



BRIDGE BETWEEN OMAHA AND COUNCIL BLUFFS—OMAHA IN THE DISTANCE.

MISSOURI RIVER BRIDGE. The construction of this bridge was first authorized by Congress on the 25th of July, 1866, but very little was done until March, 1868, when work commenced, and was continued from that time until July 26, 1869, when it was suspended. Nothing more was done until April, 1870, when a second contract was made with the American Bridge Company of Chicago, and work again commenced. On the 24th of February, 1871, Congress passed a special act authorizing the Union Pacific Railroad Company to construct this bridge across the Missouri river, and to issue bonds to the amount of \$2,500,000.

The county of Douglas, Nebraska, voted, under certain conditions, aid in county bonds to the amount of \$250,000. Also, Pottawattomie county, Iowa, voted, under certain conditions, aid to the amount of \$250,000.

This bridge is a notable structure (see illustration), one half mile in length, with the approaches over one mile.

It is located below the old depot, and opposite that part of the city of Omaha known as "Train-town," and has a single track.

The bridge is known as a "Post's Patent." The hollow iron columns are 22 in number, two forming a pier. These columns are made of cast iron one and three fourths inch in thickness, 84 feet in diameter, 10 feet long, and weight 8 tons each. They are bolted together air tight, and sunk to the bed-rock of the river, in one mass, 82 feet below low-water.

After these columns are seated on the rock foundation, they are filled up 20 feet with stone concrete, and from the concrete to the bridge "seat," they are filled with regular masonry. From high-water mark to the bridge "seat," these columns measure 50 feet. The eleven spans are 250 feet in length, making the iron part, between abutments, 2,750 feet.

These columns were cast in Chicago, and delivered in the shape of enormous rings, 10 feet in length. When they were being placed in position the workmen would take two or more rings, join them together, place the column where it was to be sunk, cover the top with an air-lock, then force the water from the column by pneumatic pressure, ranging from 10 to 35 pounds per square inch. The workmen descend the columns by means of rope-ladders, and fill sand-buckets, which are hoisted through the air-lock by a pony-engine. The sand is then excavated about two feet below the bottom of the column; the men come out through the air-lock; a leverage, from 100 to 300 tons, is applied; the pneumatic pressure is removed, and the column sinks, from three inches to two and one half feet—in one instance, the column steadily sank down 17 feet. Whenever the column sinks, the sand fills in from 10 to 50 feet—in one instance, 40 feet. This has to be excavated before another sinking of a few inches can take place, making altogether a slow and tedious process.

While crossing this bridge into the State of Nebraska, let us take a glance at *this*

OUR WESTERN COUNTRY. It can no longer be spoken of as the "far West," for that land is generally conceded to lie nearer sundown, or at least beyond the Rocky Mountains. Nebraska, so lately open to the world, and so lately considered a portion of the "wild West," forms now one of our central States. It possesses a genial climate, good water, and a fair supply of timber, and the broad prairies of the eastern portion of the State, are dotted with well cultivated and well-stocked farms, that greet the eye of the traveler in every direction, while on all sides may be seen the evidences of thrift and comfort found only in a farming region. The winters are mild, considering the latitude; the summers not oppressively warm, and there is an

absence of many diseases that render our lower lands so peculiarly unhealthy. The emigrant, who wishes a home where he can till the soil, where his labors will be rewarded with abundant harvests, will find this State to satisfy his aspirations fully. Wheat, oats, and corn, yield luxuriant returns to the husbandman, and all kinds of fruits and garden vegetables incidental to this latitude, can be grown in profusion. Rarely will the traveler find a more magnificent scene, and more suggestive of real wealth and prosperity, than can be seen on these broad prairies, when the fields of yellow grain or waving corn are waiting for the harvesters. Miles and miles away stretch the undulating plains, far—aye, farther than the eye can see.

In rapid succession we pass the better residence of the "old settler," with his immense fields of grain and herds of stock, on beyond the boundaries of earlier settlements; and now we reach the rude cabin of the hardy settler who has located still "farther west," and here, within a few years, will arise a home as attractive as those we have left behind, surrounded with orchards, gardens and flocks. Here, too, will the snug school-house be found, and the white church, with its tapering spire, pointing the people to the abode of Him who hath so richly blessed His children. There is beauty on every hand. The wild prairie flowers, of a thousand different hues and varieties greet the eye at every step; and the tiniest foot that ever trod Broadway could scarce reach the ground without crushing the life from out of some of these emblems of purity. And when the cooling showers have moistened the thirsty earth, or when the morning dew is spangling flowers, vine and tree, there is more of quiet, graceful beauty—more of that spirit floating around us which renders man more human, and woman nearer what we desire her to be, than can be found within the walls of any city, despite its beautiful gardens and public promenades. Long will the memory of these scenes remain impressed on the mind of the traveler who admires nature in all her phases. The Pacific coast possesses grand and magnificent mountain scenery, unsurpassed by any in the world, together with broad and fertile plains; Idaho, Montana, Nevada and Colorado are grand and beautiful in their rugged strength, but in none of these can be found scenes of quiet, graceful beauty, which, by any stretch of imagination, can be ranked as equal to those found almost anywhere on the prairies of this, our Western country. Nowhere else have we seen vegetation clothed in more brilliant coloring; and when the face of our warmer lands is bare, parched and brown, the transition from thence to these green plains unfolds to us almost a new phase of existence.

For a long time, Iowa, Indiana, Michigan and Ohio were supposed to contain the wheat-growing soil of the Union, and they became known as the "granaries of the States." But those "granaries" have pushed themselves a little "farther west," if we may be allowed to use the expression. Nebraska has retained a portion of the name; California and Oregon took the remainder. Nebraska annually produces a large surplus of wheat and corn, which finds its way eastward. Properly speaking, it is a wheat country, and destined to wield a powerful influence in the grain market, when her lands shall have been settled and cultivated. It is less susceptible to the effects of drought than many of her adjoining sisters. Neither have extremes of wet weather, as yet, ever caused any very serious loss. With the advantages possessed by this State; with a water-front of several hundred miles on a stream navigable the greater portion of the year; with the grandest railroad on the continent traversing her entire breadth,

and terminating with her border; with all the resources of commerce at her command; with unlimited water-power for manufactures, it will be strange, indeed, if Nebraska does not take a high rank in the great family of States.

From our present stand point the quotation "WESTWARD THE STAR OF EMPIRE TAKES ITS WAY," must apply to

THE FAR WEST.—How often that sentence has been quoted, those who are the *most* familiar with the growth of our western possessions can best remember. So often has it been uttered, that it has passed into a household word, and endowed its innocent and unsuspecting author with an earthly immortality. From the boyhood days of that reliable and highly respectable individual, the "Oldest Inhabitant" of any special locality in the "Eastern States," it has formed the heading—in large or small caps—of nearly every newspaper notice which chronicled the fact that some family had packed their household goods and gods (mostly goods) and left their native land of woods, rocks, churches, and school-houses to seek a home among the then mythical prairies of the "Far West." But oh! in later years, how that quotation ran across the double columns of these same papers in all conceivable forms of type, when the fact was chronicled that one of our western territories was admitted to the Union as a portion of the United States!

Well, but where was your "Far West" then where people went when they had "Westward ho!" on the brain? asks one, who speaks of the West as that part of our country which lies between the summit of the Rocky Mountains and the waters of the Pacific Ocean? Well, the "Far West" of that time, that almost mythical region, was what are now those vast and fertile prairies which lie south and west of the great lakes, and east of and bordering on the Mississippi River. All west of that was a blank; the home of the savage, the wild beast, and all unclean things—at least so said the "Oldest Inhabitant."

But our hardy pioneers passed the Rubicon, and the west receded before their advance. Missouri was peopled, and the Father of Waters became the great natural highway of a mighty commerce, sustained in equal parts by the populous and newly-made States lying on both its banks, which had been carved out of the "Far West" by the hands of the hardy pioneers.

Ohio, Indiana, Illinois, Michigan, Minnesota, Missouri, and Iowa had joined the sisterhood, and yet the tide of immigration stayed not. It traversed the trackless desert, scaled the Rocky Mountains, and secured a foothold in Oregon. But it passed not by unheeding the rich valleys and broad prairies of Nebraska, which retained what became, with subsequent additions, a permanent and thriving population. Then the yellow gold, which had been found in California, drew the tide of emigration thitherward, and in a few years our golden-haired sister was added to the number comprising the States of the Union.

Oregon and Nevada on the western slope, Kansas and Nebraska on the east, followed, and still we have Dakota, Idaho, Montana, Washington, Utah, Colorado, Arizona, and New Mexico Territories, to say nothing of Alaska, waiting the time when they too shall be competent to add their names to the roll of honor and enter the Union on an equality with the others. Thus we see that the "Far West" of to-day has become far removed from the West of thirty—or even ten—years ago, and what is now the central portion of our commonwealth was then the *far, far West*.

ALL IS CHANGED.—To-day the foam-crested waves of the Pacific bear on their bosoms a mighty and steadily

increasing commerce. China, Japan, and the Orient are at our doors. A rich, powerful, and populous section, comprising three States, has arisen, where but a few years since the Jesuit missions among the savages were the only marks of civilization. And all over the once unknown waste, amid the cosy valley and on the broad plains, are the scattered homes of the hardy and brave pioneer husbandmen. While the bleak mountains—once the home of the savage and wild beast, the deep gulches and gloomy cañons are illuminated with the perpetual fires of the "smelting furnaces," the ring of pick, shovel and drill, the clatter of stamps and booming of blasts, all tell of the presence of the miner, and the streams of wealth which are daily flowing into our national coffers are rapidly increasing; for, just in proportion as the individual becomes enriched, so does his country partake of his fortune.

BRIEF HISTORY—it is only a few short years ago since the Government of the United States, in order to better protect her citizens that had spread over the wild expanse of country between the Missouri River and the Pacific Ocean, and from the Mexican on the South, and the British possessions on the North, established a system of military forts and posts, extending north and south, east and west, over this Territory. Though productive of much good, they were not sufficient to meet the requirements of the times, and in many places settlers and miners were murdered with impunity by the Indians. Wise men regarded rapid emigration as the only safe plan of security, and this could not be accomplished without swifter, surer, and cheaper means of transporting the poor, who would gladly avail themselves of the opportunity to possess a free farm, or reach the gold fields of the West. The railroad and telegraph—twin sisters of civilization—were talked of, but old fogies shook their heads in the plenitude of their wisdom, piously crossed themselves, and clasped with a firmer grasp their money-bags, when Young America dared broach the subject. "No sir, no; the thing is totally absurd; impracticable, sir; don't talk more of such nonsense to me," they would reply, as they turned away to go to their church or to their stock gambling in Wall street—probably the latter occupation. But Young America did not give up to this theory or accept the dictum of money-bags; and as the counties of the West grew and expanded under the mighty tide of immigration, they clamored for a safe and speedy transit between them and their "fatherland." Government, with its usual red-tape delays and scientific way of how not to do it,

heeded not the appeal, until the red hand of war—of rebellion—pointed out to it the stern necessity of securing, by iron bands, the fair dominions of the West from foreign or domestic foe.

Notwithstanding that Benton, Clark, and others had long urged the necessity and practicability of the scheme, the wealth and power which would accrue to the country from its realization, the idea found favor with but few of our wise legislators until they awoke to the knowledge that even the loyal State of California was in danger of being abandoned by those in command, and turned over to the insurgents; that a rebel force was forming in Texas with the Pacific coast as its objective point; that foreign and domestic machinations threatened the dismemberment of the Union into three divisions; not until all this stared them in the face could our national solons see the practicability of the scheme so earnestly and ably advocated by Sargent of California and his able coadjutors in the noble work. To this threatened invasion of our Western possessions, what had government to offer for successful defence? Nothing but a few half-finished and illy-manned forts around the bay, and the untaught militia of the Pacific coast. Under this pressure was the charter granted; and it may truly be said that the road was inaugurated by the grandest carnival of blood the world has ever known; for, without the pressure of the rebellion, the road would probably be in embryo to-day. Although the American people had been keenly alive to the importance of a speedy transit between the two extremes of the continent ever since the discovery of gold on the Pacific slope, up to this time the old vague rumors of barren deserts, dark, deep, and gloomy gorges, tremendous, rugged, snow-clad mountains, and the wild savage, made the idea seem preposterous. Even the reports of the emigrants could not convince them to the contrary; nor yet the reports of the Mormons who marked and mapped a feasible route to Salt Lake City. And it is worthy of remark, that, for over 700 miles the road follows very closely their survey.

Practical, earnest men, disabused the minds of the people regarding the impracticability of the scheme, after the road had become a national necessity—a question of life and unity of the Republic. The great work has been accomplished, and to-day the locomotive whirls its long train, filled with emigrants or pleasure seekers, through that region which, only a few years ago, was but a dim, undefined, mythical land, composed of chaos, and the last faint efforts of nature to render that chaotic state still more inhospitable and uninviting. How great the change from the ideal to the real. For three hun-



dred miles after leaving Omaha, that vague "Great American Desert" proves to be as beautiful and fertile a succession of valleys as can be found elsewhere, under like geographical positions. Great is the change indeed; still greater the changes through which our country has passed during the period from the commencement to the ending of our proudest national civil record, save one. We live in a fast age; the breeze of to-day was the tornado of fifty years ago. Nature has called upon her children to rise and prepare for the changes constantly occurring, and nobly have they responded to her summons.

In noting the history of the Continental Railroad we must speak of the attempts in that direction which had been made by other parties, in another portion of our country. We find that Missouri, through her able and liberal Legislature, was the first State to move in the construction of a national or continental railroad. The Legislature of that State granted a charter, under which was incorporated the Missouri and Pacific Railroad Co., who were to build a road, diverging at Franklin, south-west, via Rollo, Springfield, Neosho (the Galena district), and along the line of the thirty-sixth parallel to Santa Fe, New Mexico. From Santa Fe to San Francisco, preliminary surveys were made, and had it not been for the rebellion, this road would undoubtedly have been completed long ere this; good authorities placing the limit at 1864. The cause which compelled the construction of the Union and Central road, destroyed the Southern. Passing as it did, mostly through southern hostile territory, government could not aid or protect it in its construction, and consequently the work was suspended. The States of Arkansas and Tennessee, by their Legislatures, proposed to assist the work, by constructing a railroad from Little Rock, to connect with the M. & P. R. R., somewhere between the ninety-eighth and one hundred and second degree of longitude, and for that purpose a charter was granted.

The evident, and we might add, the imperative necessity of connecting the east and west, and the intervening territories, encouraged the corporators of the great trans-continental line to apply to the Government for aid. Many measures were devised and laid before the people, but the supposed impregnability of the Rocky Mountains, and other natural obstacles to be encountered, caused a hesitancy even then on the part of our energetic people to commence the great work. To attempt to lay the iron rail through vast tracts of unknown country, inhabited by wandering, hostile tribes of savage nomads; to scale the snow-clad peaks of the Rocky Mountains with the fiery locomotive, seemed an undertaking too vast for even the American people to accomplish. But the *absolute* importance, the *urgent* necessity of such a work, overcame all objections to the scheme, and in 1862 Congress passed an act, which was approved by President Lincoln on the first day of July of that year, by which the Government sanctioned the undertaking, and promised the use of its credit to aid in its speedy completion. The act was entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri River to the Pacific Ocean, and to secure to the Government the use of the same for postal, military, and other purposes."

LAND GRANT.

The Government grant of lands to the great national highway, as amended, was every alternate section of land for 20 miles on each side of the road, or 20 sections, equaling 12,800 acres for each mile of the road. By the Company's table, the road, as completed, is 1,776 18-100 miles long from Omaha to Sacramento. This would give the Companies 22,735,104 acres, divid-

ed as follows: Union Pacific, 13,295,104; Central Pacific, 9,440,000.

The "junction" of the Union and Central companies is known as "Union Junction"—six miles west from where the connection is made at Ogden, Utah.

In addition to the grant of lands and right of way, Government agreed to issue its thirty year six per cent. bonds in aid of the work, graduated as follows: for the plains portion of the road, \$16,000 per mile; for the next most difficult portion, \$32,000 per mile; for the mountainous portion, \$48,000 per mile.

The Union Pacific Railroad Co. built 525 78-100 miles, for which they received \$16,000 per mile; 363 602-1000 miles at \$32,000 per mile; 150 miles at \$48,000 per mile, making a total of \$27,236,512.

The Central Pacific Railroad Co. built 7 18-100 miles at \$16,000 per mile; 580 32-100 miles at \$32,000 per mile; 150 miles at \$48,000 per mile, making a total of \$25,885,120.

The total subsidies for both roads amount to \$53,121,632. Government also guaranteed the interest on the Companies' first mortgage bonds to an equal amount.

COST OF CONSTRUCTION, MATERIAL, ETC.

In the construction of the whole line there were used about 300,000 tons of iron rails, 1,700,000 fish plates, 6,800,000 bolts, 6,126,375 cross-ties, 23,505,500 spikes.

Besides this, there was used an incalculable amount of sawed lumber boards for building, timber for trestles, bridges, etc. Estimating the cost of the road with equipments complete by that of other first-class roads (\$105,000 per mile), and we have the sum of \$186,498,900 as the approximate cost of the work.

We have not had much to say heretofore in regard to the

IMPORTANCE OF THE ROAD

to the American people, the Government, or the world at large, simply from the fact that it seemed to us anything we might say would be *entirely superfluous*, as the incalculable advantages to *all* could admit of *no possible doubt*. We contented ourselves in annually calling attention to the vast extent of rich mineral, agricultural and grazing country opened up—a vast country which had heretofore been considered *worthless*. We have pointed out, step by step, the most important features, productions, and advantages of each section traversed by the road; stated that the East and West were now connected by a *short* and *quick* route, over which the vast trade of China, Japan, and the Orient could flow in its transit eastward; and, finally, that its importance to the miner, agriculturist, stock-raiser, the Government, and the world at large, *few, if any*, could estimate.

To those who are continually grumbling about the Pacific Railroad, and forget the history of the past, professing to think that these railroad companies are great debtors to the Government, we would most respectfully submit

A FEW FACTS.

On the 18th day of March, 1862, before the charter for the Pacific Railroad was granted, while the country was in the midst of a civil war, at a time, too, when foreign war was most imminent—the Trent affair showed *how imminent*—and the country was straining every nerve for national existence, and capital, *unusually cautious* Mr. Campbell, of Penn., Chairman of the House Committee on the "Pacific Railroad" (See *Congressional Globe*, page 1712, session 2d, 37th Congress), said:

"The road is a necessity to the government. It is the government that is asking individual capitalists to build the road. Gentlemen are under the impression

CROFUTT'S TRANS-CONTINENTAL TOURIST.



GOLDEN RIVER, WYOMING. (See description, page 71.)

that it is a very great benefit to these stockholders to aid them to an extent of about half the capital required. I beg leave to call the attention of gentlemen to the fact that it is the government which is under the necessity to construct the road. If the capitalists of the country are willing to come forward and advance half the amount necessary for this great enterprise, the government is doing little in aiding the Company to the extent of the other half by way of a loan." Again (page 1911)—"It is not supposed that in the first instance the Company will reimburse the interest to the government; it will reimburse it in transportation." Mr. White said: "I undertake to say that not a cent of these advances will ever be repaid, nor do I think it desirable that they should be, as this road is to be the highway of the nation."

In the Senate (see *Congressional Globe*, page 2257, 3d vol., 2d session, 37th Congress), Hon. Henry Wilson, from Mass., said:

"I give no grudging vote in giving away either money or land. I would sink \$100,000,000 to build the road, and do it most cheerfully, and think I had done a great thing for my country. What are \$75,000,000 or \$100,000,000 in opening a railroad across the central regions of this continent, that shall connect the people of the Atlantic and Pacific, and bind us together? Nothing. As to the lands, I don't grudge them."

Nine years later—after the road had been completed nearly two years—Senator Stewart, from the Committee on the Pacific Railroad, said in his report to the U. S. Senate:

"The cost of the overland service for the whole period—from the acquisition of our Pacific coast possessions down to the completion of the Pacific Railroad—was over \$8,000,000 per annum, and this cost was constantly increasing.

"The cost, since the completion of the road, is the annual interest"—[which includes all the branches—Ed.] \$3,897,129—to which must be added one half the charges for services performed by the company, about \$1,163,138 per annum, making a total expenditure of about \$5,000,000, and showing a saving of at least \$3,000,000 per annum.

"This calculation is upon the basis that none of the interest will ever be repaid to the United States, except what is paid by the services, and that the excess of interest advanced over freights is a total loss.

"In this statement no account is made of the constant destruction of life and private property by Indians, of the large amounts of money paid by the Secretary of the Treasury as indemnity for damages by Indians to property in the government service on the plains, under the act of March 3, 1849, of the increased mail facilities, of the prevention of Indian wars, of the increased value of public lands, of the development of the coal and iron mines of Wyoming, and the gold and silver mines of Nevada and Utah, of the value of the road in a commercial point of view in utilizing the interior of the continent, and in facilitating trade and commerce with the Pacific coast and Asia; and, above all, in cementing the Union and furnishing security in the event of foreign wars."

REMEMBER THIS.—The government by charter exacted that these companies should complete their line by 1876; but, by almost superhuman exertion, it was completed May 10, 1869—and the government will have the benefit of the road *seven years* before the company were compelled by law to finish it.

Now, if we take *no account* of the millions the government saved during the building of the road—and at *their own figures*—the *saving* during the seven years previous to 1876 will net the government

\$21,000,000, *besides paying the interest on the whole amount of bonds.*

Again, if it cost the government, before the completion of the Pacific Railroad, according to Mr. Stewart, "over \$8,000,000 per annum, and this cost was *constantly increasing*"—How fast was this increase? Could it be less than six per cent. per annum? Should the figures be made on the basis of six per cent., the government will have saved, previous to 1876, in the seven years that the line was completed—before the companies were compelled to complete it—over **THIRTY MILLIONS OF DOLLARS.** This, too, after the government deducts every dollar of interest on *their own* bonds issued to the companies to *aid* the construction of the road.

The above are some few of the advantages of the Pacific Railroad to the government, and, consequently, to the country at large.

1860—1870.

The States and Territories on the line of the Union and Central Pacific Railroad, or immediately tributary to it, contained a population, in 1860, of only 554,301, with 232 miles of telegraph line and 32 miles of railway. This same scope of country contained a population, according to the census of 1870, of 1,011,971, and was encompassed by over 13,000 miles of telegraph lines and 4,191 miles of railroads, *completed*, and many more in progress, in which were invested the enormous capital of \$363,750,000. Add to the above the immense amount of capital invested—in quartz mills, smelting furnaces, development of mines, and other resources of the country, within the same ten years—then should we bring all the figures down to the present times, the grand total would be comparatively an astonishing romance.

Where, but a few years ago, the buffalo and other game roamed in countless thousands, and the savages skulked in the cañons and secret hiding-places, where they could pounce out *unawares* upon the emigrant; the hardy pioneers who have made the wilderness *if not* "to blossom like the rose," a *safe* pathway for the present generation, by laying down their lives in the cause of advancing civilization, *now* are to be seen hundreds of thousands of hardy emigrants, with their horses, cattle, sheep, and domestic animals; and the savages are among the things that have "moved on."

IN CONCLUSION.—The great hue and cry that is made at times by the people and press of the country, in regard to "giving away the lands," "squandering the public domain," etc., which censure the government for giving, and the railroad company for receiving grants of land in aid of this road, are very surprising in view of the foregoing facts. We would like to know what the lands on the line of these railroads would be worth *without* the road?

Did the Government ever sell any? Could the Government ever sell them? **NEVER.** It could not realize as much from a million of acres as it would cost their surveyors and land-agents for cigars while surveying and looking after them. When the Pacific road commenced, there was not a land office in Colorado, Wyoming, Montana, Utah, or Nevada, and only one or two in each of the other States or Territories. On the other hand, by the building of the road, many millions of dollars have already found their way into the Government treasury, and at *just double the usual price per acre.* These grumblers would place the Government in the position of the boy who wanted to *eat* his apple, *sell* it, and then get credit for *giving* it away. O! how generous!



SIDNEY DILLON, President.

UNION PACIFIC RAILROAD.

Though but little faith was at first felt in the successful completion of this great railway, no one, at the present day, can fail to appreciate the enterprise which characterized the progress and final completion of this road, its immense value to the Government, our own people, and the world at large.

By the act of 1862, the time for the completion of the road was specified. The utmost limit was July 1, 1876.

The first contract for construction was made in August, 1863, but various conflicting interests connected with the location of the line delayed its progress, and it was not until the 5th day of November, 1865, that the ceremony of breaking ground was enacted at a point on the Missouri river, near Omaha, Neb.

The enthusiast, Mr. Train, in his speech on the occasion of breaking ground, said the road would be completed in five years. Old Foggy could not yet understand Young America, and, as usual, he was ridiculed for the remark, classed as a dreamer and visionary enthusiast, the greater portion of the people believing that the limited time would find the road unfinished. But it was completed in *three years, six months, and ten days*.

Most Americans are familiar with the history of the road, yet but few are aware of the vast amount of labor performed in obtaining the material with which to construct the first portion. There was no railroad nearer Omaha than 150 miles eastward, and over this space all the material purchased in the eastern cities had to be transported by freight-teams at ruinous prices. The laborers were, in most cases, transported to the railroad by the same route and means. Even the engine, of 70 horse power, which drives the machinery at the Company's works at Omaha, was conveyed in wagons from Des Moines, Iowa, on the river of that name; that being the only available means of transportation at the time.

For five hundred miles west of Omaha the country was bare of lumber save a limited supply of cottonwood on the islands in and along the Platte river, wholly unfit for railroad purposes. East of the river, the same aspect was presented, so that the Company were compelled to purchase ties cut in Michigan, Pennsylvania, and New York, at prices reaching \$2 50 per tie. We might add that the supplies necessary to feed the vast body of men engaged had to be purchased in the East, and thus transported. In less than a year, however, these obstacles had been overcome, and the work proceeded at much less expense thereafter.

Omaha, at that time, 1863, contained less than 3,000 population, mostly a trading people, and the railroad company were compelled to create, as it were, almost everything. Shops must be built, forges erected, all the machinery for successful work must be placed in position, before much progress could be made with the work. This was accomplished as speedily as circumstances would permit, and by January, 1866, 40 miles of road had been constructed, which increased to 265 miles during the year; and in 1867, 285 miles more were added, making a total of 550 miles on January 1, 1868. From that time forward the work was prosecuted with greatly increased energy, and on May 10, 1869, the road met the Central Pacific Railroad at Promontory Point, Utah Territory—the last 534 miles having been built in a little more than 15 months; being an average of nearly one and one-fifth mile per day.

By arrangements with the Central Pacific Railroad Company, the "Union" relinquished 46 miles of road to the "Central," leaving its entire length 1,038 miles. A place called Union Junction, six miles west of Ogden, where the connection is made at present, has been decided by act of Congress to be the proper junction between the two roads.

SNOW DIFFICULTIES.—The Central Pacific Company commenced the erection of snow-sheds at the same time with their track-laying over the Sierra Nevada Mountains, and the result has been their trains have never been delayed as often or as long as on many roads in the Eastern States. The depths of snow-fall and the necessities for snow-sheds over the Sierras were *known*, and could be guarded against, but further to the eastward, over the Rocky Mountains, on the route of the Union Pacific, no such necessity for protection against snow was thought to exist. However, the Union Pacific Company took, as it was thought by everybody at the time, ample precautions to protect their cuts from the drifting snow, by the erection of snow-fences and snow-sheds at every exposed point. The winter of 1871-2, proved to be one of unusual—unheard of severity. The snow caused annoying delays to passenger and freight traffic, as well as costing the company a large amount of money to keep the road open. But the lesson taught was a good one in enabling the Company to take such measures as were necessary to protect their road against all possible contingencies in the future, which they have done by raising their track and building additional snow-sheds and fences.

OMAHA.—Is reached just after crossing the bridge. It is situated on the western bank of the Missouri river, on a slope about 50 feet above high-water mark, with an altitude of 966 feet above sea level. It is the present terminus of the Union Pacific Railroad. Population, by census of 1870, 16,083; now about 18,000. Omnibuses take passengers and baggage from the depot to the hotels for 50 cents. Street cars also leave every five minutes, passing the principal hotels and running the whole length of the city; fare 5 cents.

In 1854, the Council Bluffs and Nebraska Ferry Com-

pany purchased the land now occupied by the city, and erected the first "claim house." About this time the name of Omaha—after the Omaha Indians—was given to the place, and a few squatters located and commenced improvements.

It is related that the first postmaster of Omaha used his hat for a post-office, and many times, when the postmaster was on the prairie, some expectant, anxious individual, would chase him for miles until he overtook the traveling post-office and received his letter. "Large oaks from little acorns grow," says the old rhyme; 'tis illustrated in this case. The battered-hat post-office has given place to a first-class post-office, commensurate with the future growth of the city. It is now the distributing post-office, and employs quite an army of clerks, as the Omaha people are a writing and reading community.

The State capital was first located here, but was removed to Lincoln in 1868. Omaha, though the first settlement made in Nebraska, is a young city. The town improved steadily until 1859, when it commenced to gain very rapidly. The inaugurating of the Union Pacific Railroad gave it another onward impetus, and since then the growth of the city has been very rapid. There are many evidences of continued prosperity and future greatness. Like Council Bluffs, it has a large area of fertile territory tributary to it, and either railroad or steamboat connections in every direction.

During the past year Omaha has improved substantially. The government has just completed a large court-house and post-office building, using a very fine quality of Cincinnati free-stone. It is 122 feet in length by 66 feet in width—four stories high—cost \$350,000, and is one of the most attractive buildings in the city; but by far the largest building is one devoted to educational purposes, which has been several years in building. It stands on the site of the old State-house, the highest point in the city, and is the first object which attracts the attention of the traveler approaching from the East, North or South. Its elevation and commanding position stands forth as a fitting monument to attest a people's intelligence and worth.

Omaha, until recently, never possessed first-class hotel accommodations; none felt it more than the citizens themselves. This necessity induced many of the prominent and most enterprising merchants and residents of the city to organize a stock company, to build what they have called—

From our personal knowledge, we believe this house to be one of the best, west of the Missouri River.

The Omaha Smelting Works consist of a building 120x40 feet, containing five reverberatory furnaces with a capacity for smelting 25 tons of ore per day; separating and refining building 80x60 feet, containing separating furnaces with capacity for handling 30 tons of crude bullion per day; also cupella furnaces and engine and necessary machinery; lead building, with capacity of 30 tons per day; retort building, for distilling zinc used in separating, 45x50 feet, containing 8 furnaces. The company employ from 60 to 75 men—running continuously—gross yield of gold, silver and lead, about \$1,000,000 annually.

The daily newspapers at Omaha are the *Herald*, the *Tribune* and *Republican*, and the *Bee*. Each of the above publish weeklies. There is also a German, a Bohemian and a Scandinavian paper, weeklies. The *Agriculturalist*, is a monthly. There are two collegiate institutes and convent schools, many private and public schools, 19 churches, four banks, and small hotels, "till you can't rest." There are about 40 manufacturing of miscellaneous goods, several distilleries, and six breweries. There are also several very extensive lumber and coal dealers.

The Union Pacific Railroad Company are erecting near their depot, a large building to be used as general offices, also extensive freight warehouses.

The company have also erected, at their depot, an emigrant house, for the benefit of their passengers. The house is given rent free to a competent person who charges 25 cents each, for good plain meals, and good lodgings. All gambling, emigrant runners, peddlers, ticket-sellers, and "bummers" are forbidden in the house or about the premises.

About one mile above the bridge, on the low lands fronting the river, the Railroad company have located their principal shops and store-houses. They are built of brick, in the most substantial form, and with the out buildings, lumber yard, tracks, etc., cover about 30 acres of ground.

The machine shop is furnished with all the new and most improved machinery, which is necessary for the successful working at all the branches of car and locomotive repairs or car construction. The round-house contains 20 stalls. The foundry, blacksmith shop, car and paint shops, are constructed and furnished in the best manner. The company manufacture most of their own cars. The passenger cars, in point of neatness, finish, strength of build and size, are unsurpassed by any, and rivaled by few manufactured elsewhere. It is the expressed determination of the Union Pacific Company to provide as good cars and coaches for the traveling public, in style and finish, as those of any eastern road. They reason: that as the great trans-continental railroad is the longest and grandest on the continent, its rolling-stock should be equally grand and magnificent. From the appearance of the cars already manufactured, they will achieve their desires. On the same principle, we proposed to make our Book superior to any other. *Haven't we done so?*

THE OMAHA BARRACKS were established in 1868; are eight in number, capable of accommodating 1,000 men. They are situated about three miles north, and in full view of the city. Latitude, 40 deg. 20 min.; longitude, 96 deg. from Greenwich. Eighty acres of land are held as reserved, though no reservation has yet been declared at this post. There is an excellent carriage-road to the barracks, and a fine drive around them, which affords pleasure parties an excellent opportunity to witness the dress-parades of "the boys in blue." It



THE GRAND CENTRAL HOTEL.

is a favorite resort. The parade, the fine drive, and improvements around the place, calling out many of the fashionable pleasure-seekers of Omaha. The grounds have been planted with shade-trees, and in a few years it will become one of the many pleasant places around the growing city of Omaha.

The post is the main distributing point for all troops and stores destined for the western side of the "Big Muddy." The barracks were erected for the purpose of quartering the troops during the winter season, when their services were not required on the Plains, and as a general rendezvous for all troops destined for that quarter.

In the first volume of this book we attempted to give the names of the officers commanding each post in the department, with the names and number of the companies under their command, but the changes are so rapid that we have found it impossible to keep up with them.

The Omaha and North-western and the Omaha and Plattsmouth Branch Railroads were chartered under the general railway act which gave two thousand acres of land for every mile of road completed before a specified time. The route of the North-western is five miles up the Missouri river valley, then north-west to the valley of the Papillion, thence to the Elkhorn river, and up the Elkhorn valley to the mouth of the Niobrara. It is now completed, and cars are running to Kernan, 10 miles beyond Blair—about 39 miles from Omaha. At Blair connections are made with the Sioux City and Pacific Railroad. Mr. Doaker, president of the last named road and manager of the North-western, reports say, will extend the line from Sioux City to the present northern terminus of the Omaha and North-western during the present season, and, by the addition of a transfer steamer at Sioux City, will enable the lumber shippers of Minnesota to deliver lumber at Omaha and along the Union Pacific Railroad, in the Platte valley, without breaking bulk, besides enabling the line to run through coaches and sleepers between St. Paul and Omaha, without change.

The route of the Omaha and Plattsmouth Branch is down the Missouri river valley, where it crosses the Platte and runs to Oreopolis. This road is under the management of the Burlington and Missouri River Railroad Company, and makes close connections at Oreopolis with the main line—the Burlington and Missouri River Railroad—for the East and West.

Before leaving Omaha, be sure and secure your tickets in one of the PALACE SLEEPING CARS that accompany all through trains, and you will thereby insure an opportunity for a refreshing sleep, as well as a palace by night and day. This, however, costs an extra fee. (See Time Table Map for Prices.) But as all cannot afford to ride in Palace Cars, "do the next best thing," and secure—pre-empt, if you please—the best seat you can, and prepare to be as happy as you know how.

There is no longer any necessity of purchasing a lunch basket of provisions to take along, as the eating-houses are numerous—charges, \$1.00 a meal—and the accommodations at all the principal stations for all those who wish to "stop over" a day or two, are ample, charges, from \$3.00 to \$4.00 per day.

ONE WORD MORE.—As you are about to leave the busy hum and ceaseless bustle of the city for the broad-sweeping plains, the barren patches of desert, and the grand old mountains—for all these varied features of the earth's surface will be encountered before we reach the Pacific coast—lay aside all city prejudices and ways for the time; leave them in Omaha, and for once be natural while among nature's loveliest and grandest creations. Having done this, you will be prepared to

enjoy the trip—to appreciate the scenes which will rise before you.

But, *above all*, forget everything but the journey; and in this consists the secret of having a good time generally.

The bell rings—the whistle shrieks—all ready—"all aboard"—and we pass along through the suburbs of the town for about four miles, when we pass

SUMMIT SIDING—(A FLAG STATION)—with an altitude of 1,142 feet.

GILMORE—Is the next station, six miles west of Summit. We are now descending rapidly. Elevation, 976 feet.

The country around this station is rich prairie land, well cultivated. A small cluster of buildings is near the road; the station is of little importance, merely for local accommodation.

PAPILLION—(Pap-e-o) is five miles west of Gilmore. Elevation, 972 feet. The station is on the east side of Papillion River, a narrow stream of some 50 miles in length, which, running southward, empties into Elkhorn River, a few miles below the station. The bridge over the stream is a very substantial wooden structure. The country about the station has been improved very much within the last few years. It has fully doubled its population, and evidences of thrift appear on every hand.

MILLARD—A new station—is six miles further west.

ELKHORN—Is eight miles from Millard, on the east bank of Elkhorn River, and of considerable importance in point of freight traffic—it being the outlet of Elkhorn River Valley.

ELKHORN RIVER—Is a stream of about 300 miles in length. It rises among the hills of the divide, near where the head-waters of the Niobrara River rise and wend their way toward their final destination, the Missouri. The course of Elkhorn creek, or river, is east of south. It is one of the few streams in this part suitable for mill purposes, and possesses many excellent mill sites along its course. The valley of this stream averages about 8 miles in width, and is of the best quality of farming land. It is settled by Germans for over 100 miles in length from its junction with the Platte River. The stream abounds in native fish, as well as a great variety of "fancy brands" from the east—a car load of which were accidentally emptied into the water at the bridge, while en route to be placed in the lakes and streams of California, during the spring of 1873.

Wild turkey on the plains, and among the low hills, along with deer and antelope, afford sport and excitement for the hunter. The river swarms with ducks and geese at certain seasons of the year, that come here to nest and feed. The natural thrift of the German is manifested in his well-conducted farms, comfortable houses, surrounded by growing orchards and well-tilled gardens. There is no pleasanter valley in Nebraska than this, or one where the traveler will find a better field for observing the rapid growth and great natural resources of the North-west; and should he choose to pass a week or more in hunting and fishing, he will find ample sport and a hospitable home with almost any of the German settlers.

WATERLOO—Is a small side-track station, two miles west of Elkhorn. Here is a flouring mill, store, school-house, and some neat little cottages of the well-to-do farmers.

VALLEY—Four miles west, has a score of new buildings in sight, evincing steady improvement. The elevation of this station is 1,120 feet. For the next 450 miles we have a gradual up-grade. The curious who wish to note the elevation are referred to the timetable in the front of the book, where the figures will be found for each station of any importance on the whole line.

The bluffs on the south side of the Platte river can be seen in the distance, but a few miles away, in a south-westerly direction. Between Valley and Fremont we catch the first glimpse of the Platte river.

FREMONT—Four miles from Valley, is the county seat of Dodge County, situated about three miles from the Platte River, and contains a population of about 3,000. Passenger trains stop here, both from the east and the west, for dinner. The eating house is owned and conducted by Mr. John H. Sahler, and is one of the best on the whole line. Price \$1.00.

The company have here, besides their excellent depot, a round-house with six stalls. The public buildings include a jail and court-house, seven churches, and some fine school-houses. Five years ago we said: "It was a thriving place in the midst of a beautiful country." Now it is a city of no mean pretensions. Within the past five years there has been built nearly seven hundred dwelling houses, with stores of all kinds in proportion. All of this "beautiful country" has been taken up and occupied by thrifty farmers, who are reaping an abundant reward for their labor.

The *Herald*, a daily and weekly, and the *Tribune*—weekly, are newspapers published here.

The Sioux City and Pacific R. R. connects here with the U. P. and runs through to St. Johns, Iowa, where it connects with the Chicago and North-Western R. R. It is claimed this route is 33 miles shorter to Chicago than via Omaha, but we do not know of any through travel ever going by this line, and judge the local travel to be its sole support.

The Fremont and Elkhorn Valley Railroad to the northward is completed to Wisner, about 50 miles, and trains are running regularly.

This line transported over 2,000 car loads of wheat during the year 1873.

Fremont is connected with the south side of the Platte by a wagon bridge that costs over \$50,000.

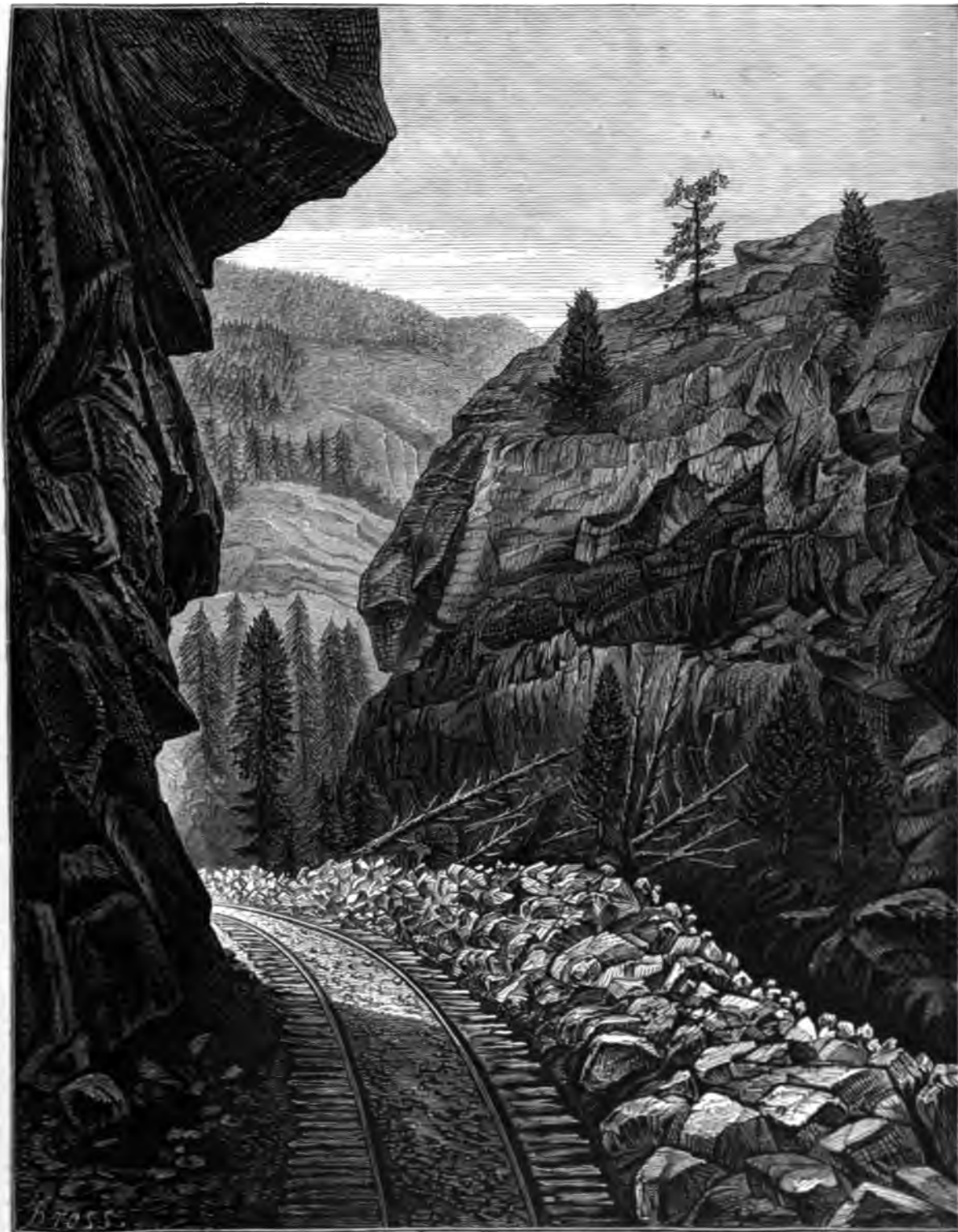
THE PLATTE RIVER—We are "now going up the Platte," and for many miles we shall pass closely along its north bank; at other times, the course of the river can only be traced by the timber growing on its banks. Broad plains are the principal features, skirted in places with low abrupt hills, which here, in this level country, rise to the dignity of "bluffs."

It would never do to omit a description of this famous stream, up the banks of which so many emigrants toiled in the "Whoa haw" times, from 1850 to the time when the railroad destroyed Othello's occupation. How many blows from the ox-whip have fallen on the sides of the patient oxen as they toiled along, hauling the ponderous wagons of the freighters, or the lighter vehicles of the emigrant? How often the sharp ring of the "popper" aroused the timid hare or graceful antelope, and frightened them away from their meal of waving grass? How many tremendous jaw-breaking oaths fell from the lips of the "bull-whackers" during that period, we will not even guess at; but pious divines tell us that there is a statistician who has kept a record of all such expletives; to that authority we refer our readers, who are fond of figures. Once in a while, too, the traveler will catch a glimpse of a lone grave, marked by a rude head-board, on these plains;

and with the time and skill to decipher the old and time-stained hieroglyphics with which it is decorated, will learn that it marks the last resting place of some emigrant or freighter, who, overcome by sickness, laid down here and gave up the fainting spirit to the care of Him who gave it; or, perchance, will learn that the tenant of this rentless house fell while defending his wife and children from the savage Indians, who attacked the train in the gray dawn or darker night. There is a sad, brief history connected with each, told to the passer-by, mayhap in rude lines, possibly by the broken arrow or bow, rudely drawn on the mouldering head-board. However rude or rough the early emigrants may have been, it can never be charged to them that they ever neglected a comrade. The sick were tenderly nursed, the dead decently buried, and their graves marked by men who had shared with them the perils of the trip. Those were days, and these plains the place that tried men's mettle; and here the western frontiersman shone superior to all others who ventured to cross the "vast desert" which stretched its unknown breadth between him and the land of his desires. Brave, cool and wary as the savage, with his unerring rifle on his arm, he was more than a match for any red devil he might encounter. Patient under adversity, fertile in resources, he was an invaluable aid at all times; a true friend, and bitter foe. This type of people is fast passing away. The change wrought within the last few years has robbed the plains of its most attractive features to those who are far away from the scene—the emigrant train. Once, the south bank of the Platte was one broad thoroughfare, whereon the long trains of the emigrants, with their white-covered wagons, could be seen stretching away for many miles in an almost unbroken chain. Now, on the north side of the same river, in almost full view of the "old emigrant road," the cars are bearing the freight and passengers rapidly westward, while the oxen that used to toil so wearily along this route, have been transformed into "western veal" to tickle the palates of those passengers, or else, like Tiny Tim, they have been compelled to "move on" to some new fields of labor.

To give some idea of the great amount of freighting done on these plains we present a few figures, which were taken from the books of freighting firms in Atchison, Kansas. In 1865, this place was the principal point on the Missouri River from which freight was forwarded to the Great West, including Colorado, Utah, Montana, &c. There were loaded at this place 4,480 wagons, drawn by 7,310 mules, and 29,720 oxen. To control and drive these trains, an army of 5,610 men was employed. The freight taken by these trains amounted to 27,000 tons. Add to these authenticated accounts, the estimated business of the other shipping points, and the amount is somewhat astounding. Competent authority estimated the amount of freights shipped during that season from Kansas City, Leavenworth, St. Joe, Omaha and Plattsmouth, as being fully equal, if not more than was shipped from Atchison, with a corresponding number of men, wagons, mules and oxen. Assuming these estimates to be correct, we have this result: During 1865, there were employed in this business, 8,960 wagons, 14,620 mules, 59,440 cattle, and 11,220 men, who moved to its destination, 54,000 tons of freight. To accomplish this, the enormous sum of \$7,289,300 was invested in teams and wagons alone.

But to return to the river, and leave facts and figures for something more interesting. "But," says the reader, "ain't the Platte River a fact?" Not much of one frequently, for at times, after you pass above Julesburg, there is more fancy than fact in the streams. In 1863, teamsters were obliged to excavate pits in the



CLEAR CREEK CANYON SCENERY, COLORADO. See page 58

sand of the river-bed before they could find water enough to water their stock. Again, although the main stream looks like a mighty river, broad and majestic, it is as deceiving as the "make up" of a fashionable woman of to-day. Many places it looks broad and deep; try it, and you find that your feet touches the treacherous sand ere your instep is under water; another place, the water appears to be rippling along over a smooth bottom, close to the surface; try that, and in you go, over your head in water, thick with yellowish sand. You don't like the Platte when you examine it in this manner; neither do the old teamsters speak well of it. The channel is continually shifting, caused by the vast quantities of sand which are continually floating down its muddy tide. The sand is very treacherous too, and woe to the unlucky wight who attempts to cross this stream before he has become acquainted with the fords. Indeed, he ought to be introduced to the river and all its branches before he undertakes the perilous task. In crossing the river in early times, should the wagons come to a stop, down they sank in the yielding quick-sand, until they were so firmly bedded that it required more than double the original force to pull them out; and often they must be unloaded, to prevent the united teams from pulling them to pieces, while trying to lift the load and wagon from the sandy bed. The stream is generally very shallow during the fall and winter; in many places no more than six or eight inches in depth, over the whole width of the stream. Numerous small islands, and some quite large, are seen while passing along, which will be noticed in their proper place.

The Platte river has not done much for navigation, neither will it, yet it drains the waters of a vast scope of country, thereby rendering the immense valleys fertile, many thousand acres of which, during the past few years, have been taken up and successfully cultivated.

The average width of the river, from where it empties into the Missouri to the junction of the North and South Forks, is not far from three fourths of a mile; its average depth is *six inches*. In the months of September and October the river is at its lowest stage.

The lands lying along this river are a portion of the land granted to the Union Pacific Railroad, and the company are offering liberal terms and great inducements to settlers. Most of the land is as fine agricultural and grazing land as can be found in any section of the north-west. Should it be deemed necessary to irrigate these plains, as some are inclined to think is the case, there is plenty of fall in either fork, or in the main river, for the purpose, and during the months when irrigation is required, there is plenty of water for that purpose, coming from the melting snow on the mountains. Ditches could be led from either stream and over the plains at little expense. Many, however, claim that in ordinary seasons, irrigation is unnecessary.

From Omaha to the Platte River, the course of the road is southerly, until it nears the river, when it turns to the west, forming, as it were, an immense elbow. Thence along the valley, following the river, it runs to Kearney, with a slight southerly depression of its westerly course; but from thence to the North Platte it recovers the lost ground, and at this point is nearly due west from Fremont, the first point where the road reaches the river. That is as far as we will trace the course of the road at present.

The first view of the Platte Valley is impressive, and should the traveler chance to behold it for the first time in the spring or early summer, it is then very beautiful; should he behold it for the first time, when

the heat of the summer's sun has parched the plains, it may not seem inviting, its beauty may be gone, but its majestic grandness still remains. The eye almost tires in searching for the boundary of this vast expanse, and longs to behold some rude mountain peak in the distance, as proof that the horizon is not the girdle that encircles this valley. When one gazes on mountain peaks and dismal gorges, on foaming cataracts and mountain torrents, the mind is filled with awe and wonder, perhaps fear of Him who hath created these grand and sublime wonders. On the other hand, these lovely plains and smiling valleys—clothed in verdure and decked with flowers—fill the mind with love and veneration for their Creator, leaving on his heart the impression of a joy and beauty which shall last forever.

Returning to Fremont—and the railroad—we find

KETCHUM—To be the next station—seven miles from Fremont. Near this station, and at other places along the road, the traveler will notice fields fenced with cottonwood hedge, which appear to thrive wonderfully.

NORTH BEND—Is eight miles from Ketchum, situated near the river bank, and surrounded by a fine agricultural country, where luxuriant crops of corn give evidence of the fertility of the soil. For a few miles the railroad track is laid nearer the river's bank than at any point between Fremont and North Platte.

RODGERS—Is a new station, and apparently one of promise—seven miles west of the Bend.

SCHUYLER—Is the next station—seven miles from the last. It is the county seat of Colfax County, containing about 600 inhabitants, and rapidly improving. It has five churches, two very good hotels, with court-house, jail, school-houses, etc., etc. It is the first station—going west—where cattle are loaded into the cars and shipped to eastern markets. The railroad company have erected numerous cattle pens and shutes near the station, to accommodate this increasing business. A bridge over the Platte River, two miles south of the station, was built in 1872, but a rise in the river washed it away, but we understand it is being re-built, and will, when completed, centre at this town a large amount of business from the south side of the river.

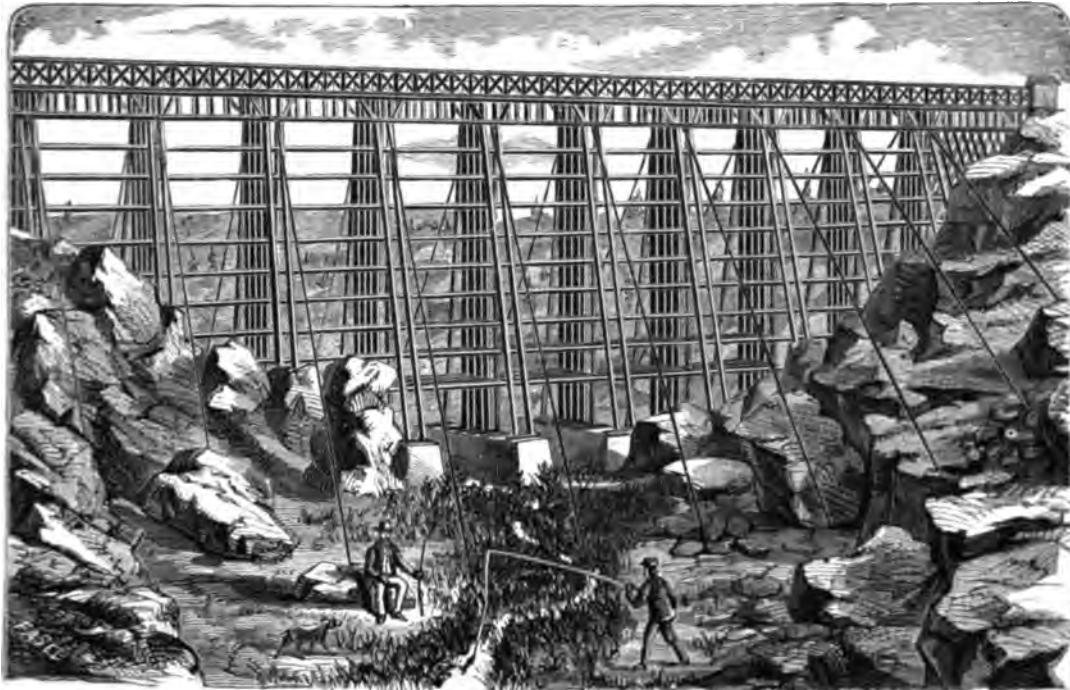
RICHLAND—Formerly Cooper—is an unimportant station—eight miles from Schuyler.

COLUMBUS—The county seat of Platte County—is eight miles west of Richland. It contains about 1,500 inhabitants, has two banks, six churches, several schools, good hotels, and one weekly newspaper—the *Platte Journal*.

George Francis Train called Columbus the geographical centre of the United States, and advocated the removal of the National Capitol to this place. We have very little doubt, should George be elected President in 1876, but that he will carry out the idea, and we shall behold the Capitol of the Union located on these broad plains. In July and August, 1867, Columbus was a busy place, and the end of the track. Over 10,000,000 lbs. of Government corn and other freight was re-shipped from here to Fort Laramie, and the military camps in the Powder River Country. This was the first shipment of freight over the Union Pacific Railroad.

Numerous railroads to the north and south are projected from Columbus, and its future prospects are bright.

Soon after leaving Columbus we cross Loup Fork on a fine wooden bridge, constructed in a substantial manner. This stream rises 75 miles north-east of North



DALE CREEK BRIDGE. (See page 62.)

Platte City, and runs through a fine farming country until it unites with the Platte. Plenty of fish of various kinds are found in the stream, and its almost innumerable tributaries. These little streams water a section of country unsurpassed in fertility and agricultural resources. Game in abundance is found in the valley of the Loup, consisting of deer, antelope, turkeys and prairie chickens, while the streams abound in ducks and geese.

JACKSON—A small station—is seven miles west of Columbus. Passing along ten miles further, and crossing a small stream called Silver Creek, we arrive at the station called

SILVER CREEK.—This section of country has improved very rapidly during the last few years, and we notice many substantial evidences of thrift in every direction.

To the north-east of this station is situated the Pawnee Indian Reservation, but not visible from the cars. It covers a tract of country 15x30 miles, most of which is the best of land. About 2,000 acres are under cultivation. The tribe numbers about 2,000, are provided with an "Agency" and all the usual accompanying "civilization!"

CLARK'S—Is a small station eleven miles west, named in honor of the General Sup't of the road.

The surrounding country is remarkably rich in the wealth of a nation—agriculture—and has made rapid progress during the last year.

LONE TREE—The county seat of Merrick county, is eleven miles west of Clark's. It contains a population of about 400, and is surrounded by thrifty farmers. The "old emigrant road" from Omaha to Colorado crosses the river opposite this point, at the old "Shinn's Ferry." A bridge is now contemplated, and will be found of great commercial advantage to the town.

Passengers will please take notice of the track; the road for 40 miles is built as *straight as it is possible for a road to be built*. When the sun is low in the horizon, at certain seasons of the year, the view is very fine.

CHAPMAN'S—A signal station, is ten miles west of Lone Tree. The plains are broad and rapidly settling up.

LOCKWOOD—Is another small side-track station, five miles further west.

GRAND ISLAND—A regular eating station; is six miles west of Lockwood. Passenger trains going West, stop 30 minutes for supper, and those for the East, the same time for breakfast. Meals good, but apartments small, with little elbow-room. This town is the county seat of Hall county, and contains a population of from 1,000 to 1,200, the county buildings, and a good supply of banks, churches, schools, hotels, stores, &c. The *Independent*, *Orchard and Vineyard*, and the *Times*, three weekly newspapers, are published here.

The bridge over the Platte river to the south, and the one over Loup Fork to the northward, has had a tendency to centre a large amount of trade at this point.

It is claimed that this town will become an important railroad centre. Besides the Union Pacific, it is to be the initial point of the Grand Island and North-western Railroad, the terminus of the Midland Railroad, the junction of the Central Nebraska and Montana Railroad, and the initial point of the Grand Island, Hastings and St. Joe Railroad. Nearly \$100,000 in county bonds have been voted to aid the construction of the last named road. Efforts are making to complete these roads within the next two or three years. The Union Pacific Railroad Company have located here machine and repair shops, round-house, etc., being the

end of the first power division west of Omaha.

This station was named after Grand Island in the Platte river, two miles distant, one of the largest in the river, being about 80 miles in length by four in width. The Island is well wooded—cottonwood principally. It is a reservation held by the government, and is guarded by soldiers.

When the road was first built to Grand Island, buffalo were quite numerous, their range extending over 200 miles to the westward. In the spring, these animals were wont to cross the Platte, from the Arkansas and Republican valleys, where they had wintered, to the northern country, returning again, sleek and fat, late in the fall; but since the country has become settled, few, if any, have been seen. In 1860, immense numbers were on these plains on the south side of the Platte, near Fort Kearney, the herds being so large that often emigrant teams had to stop while they were crossing the road. At Fort Kearney, in 1859 and 1860, an order was issued forbidding the soldiers to shoot the buffalo on the parade ground.

ALDA—Formerly Pawnee—is a small station eight miles west of Grand Island, just east of Wood River. Trains seldom stop.

After crossing the river, the road follows along near the west bank for many miles, through a thickly settled country, the farms in summer being covered with luxuriant crops of wheat, oats, and corn. Wood River rises in the bluffs, and runs south-east until its waters unite with those of the Platte. Along the whole length of the stream and its many tributaries, the land for agricultural purposes is surpassed by none in the northwest, and we might say in the world. The banks of the river and tributaries are well wooded; the streams abound in fish and wild-fowl; and the country adjacent is well supplied with game, deer, antelope, turkeys, chickens, rabbits, etc., forming a fine field for the sportsman.

This valley was one of the earliest settled in Central Nebraska, the hardy pioneers taking up their lands when the savage Indians held possession of this their favorite hunting-ground. Many times the settlers were driven from their homes by the Indians, suffering fearfully in loss of life and property, but as often returned again, and again, until they succeeded in securing a firm foothold. To-day the evidences of the struggle can be seen in the low, strong cabins, covered on top with turf, and the walls loop-holed, and enclosed with the same material, which guards the roofs from the fire-brand, bullets and arrows of the warriors.

WOOD RIVER—A station, is ten miles from Alda.

GIBBON—Is ten miles further. Both these stations are surrounded with well cultivated fields. Wonderful indeed, is the changes that have taken place in this country within the last few years, and as wonderful will they be for the next five.

KEARNEY—Is a small station, eight miles west of Gibbon—named for the old fort of that name on the south side of the river, nearly opposite.

KEARNEY JUNCTION—Is an important station, four miles further west. Here the Burlington and Missouri Railroad, and the Denver and St. Joseph Railroad, form a junction with the Union Pacific coming in from the South, on the same track, which crosses a bridge over the Platte river, two miles distant.

FORT KEARNEY. This post was first established at Fort Childs, Indian Territory, in 1848, by volunteers of the Mexican war.—Changed to Fort Kearney in March,

1849. In 1858 the post was re-built by the late Brevet-Colonel Charles May, 3d Dragoons. It is situated five miles south of Kearney station, and nine miles via Burlington and Missouri Railroad from Kearney junction, on the south bank of the Platte, which is at this point three miles wide, and filled with small islands. The fort is in latitude 40 deg. 33 min., longitude 99 deg. 06 min. Two miles above the fort, on the south bank, is Kearney City, in early days more commonly called "Dobey Town." This was once a great point with the old Overland Stage Company, and at that time contained about 500 inhabitants, the great portion of which left upon the abandonment of the line and the south-side, route of travel. But we are told settlers are coming in, and it will soon regain its "old time" figures.

Returning to Kearney Junction—

STEVENSON—Is the next station, six miles west, but trains seldom stop.

ELM CREEK—Another small station, is ten miles from Stevenson. Soon after leaving the station we cross Elm Creek; a small, deep, and quite a lengthy stream. It is well wooded, the timber consisting almost entirely of red elm, rarely found elsewhere in this part of the country.

OVERTON—Situated on a branch of Elm Creek, is nine miles from Elm Creek station. The Platte valley along here, and for the last fifty miles, is very broad; nearly all the best land has been taken up, or purchased, and a great portion is under cultivation.

PLUM CREEK—Ten miles from Overton, contains about 400 inhabitants. It was named after an old stage station and military camp, situated on the south side of the river, on Plum creek, a small stream which heads in very rugged bluffs south-west of the old station, and empties its waters into the Platte—opposite Plum Creek station on the railroad.

This old station was the nearest point on the "old emigrant road" to the Republican river, the heart of the great Indian rendezvous, and their supposed secure stronghold, being but about 18 miles. Around the old Plum Creek station many of the most fearful massacres which occurred during the earliest emigration were perpetrated by the Sioux, Cheyenne, and Arapahoe Indians. The bluffs here come very close to the river, affording the savages an excellent opportunity for surprising a train, and, being very abrupt and cut up with gulches and cañons, afforded them hiding-places, from which they swooped down on the luckless emigrant, often massacring the larger portion of the party.

Returning to the railroad,

CAYOTE—Is the next station, 10 miles from Plum Creek. Here the bottoms are very wide, having steadily increased in width for many miles. Along the river is heavy cottonwood timber, which has extended for the last 50 miles. From this point westward the timber gradually decreases in size and quantity.

WILLOW ISLAND—A station, ten miles west of Cayote, derives its name from an island in the Platte, the second in size in that river. Last year we said, "The country round about is as rich as any to the eastward, and fine lands can be obtained here at a low figure. We predict that by the time for our next year's revise of the GUIDE, the greater portion will have been taken up." This prediction has come true; as we now learn that a large tract of the best land has recently been secured in the interest of a colony of settlers from the East, who will soon occupy it. Here may be seen a few of those old log houses, with their



HANGING ROCK, ECHO CANYON. (See page 7a.)

sides pierced with loop-holes and walled up with turf, the roofs being covered with the same material, which reminds one of the savage against whom these precautions were taken. In fact, from here up the river, the traveler will doubtless observe many of the rude forts along the roadside as well as at the stations. The deserted ranches to be met with along the "old emigrant road," on the south side of the river, are fortified in the same manner. The fort was generally built of logs, covered on top and walled on the side in the manner described. They are pierced with loop-holes on all sides, and afforded a safe protection against the Indians. They generally stood about fifty yards from the dwelling, from which an underground passage led to the fort. When attacked, the settlers would retreat to their fortification where they would fight it out; and until the Indians got "educated," many a "red brother" would get a shot—to him unawares—which would send him to his "happy hunting-ground."

WARREN—A side-track, where trains seldom stop, ten miles from Willow Island, and nine from

BRADY ISLAND.—This station derives its name from an island in the Platte river, which is of considerable size. This station possesses many natural advantages, and, with proper development, will make a "good town." Soldiers were formerly stationed here, and at many other stations along the line, detailed to protect the company's men and property from any wandering bands of Indians who should chance to pass through this part of the valley, as this is one of their favorite crossings.

MCPHERSON.—Is a military station, eight miles from Warren, six miles from the Platte River, and seven miles from old "Cottonwood Springs" on the opposite side of the river, with which it is connected by a bridge, a great improvement on the old ford.

The country round about is well watered, and timber

on the bottoms can be obtained for all necessary purposes. A large amount of fine meadow land adjoins the station, from which are cut thousands of tons of hay that are either sold to the government at the fort or shipped up or down the road.

FORT MCPHERSON.—Is situated on the south side of the Platte River, near Cottonwood Springs. The post was established Feb. 20, 1866, by Major S. W. O'Brien, of the 7th Iowa Cavalry. It was originally known as "Cantonment McKeon," and also as "Cottonwood Springs." At the close of the war, when the regular army gradually took the place of the volunteers who had been stationed on the frontier during the rebellion, the names of many of the forts were changed, and they were re-named in memory of those gallant officers who gave their lives in defence of their country. Fort McPherson was named after Major-General James B. McPherson, who was killed in the battle before Atlanta, Georgia, July, 22d, 1864. Supplies are received via McPherson Station. Located in latitude 41 deg., longitude 100 deg. 30 min.

GANNETT Is seven miles beyond McPherson and five from where the trains cross the long trestle bridge over the

NORTH PLATTE RIVER. This river rises in the mountains of Colorado, in the North Park. Its course is to the north-east from its source for several hundred miles, when it bends around to the south-east. We shall cross it again at Fort Steele, 102 miles farther west. The general characteristics of the stream are similar to those of the South Platte.

For 100 miles up this river the "barren lands" are from 10 to 15 miles wide, very rich, and susceptible of cultivation, though perhaps requiring irrigation. Game in abundance is found in this valley, and bands of wild horses at one time were numerous.

Fort Laramie is about 150 miles from the junction near where the Laramie river unites with this stream.

On the west bank of the river, 80 miles north, is Ash Hollow, rendered famous by General Harney, who gained a decisive victory over the Sioux Indians, many years ago.

About one mile beyond the bridge is situated

NORTH PLATTE CITY—The county seat of Lincoln county, and one of the best locations for a large town on the whole line of the Union Pacific road. Elevation, 2,789 feet. Distance from Omaha, 291 miles. The road was finished to this place, November, 1866. Here the company have a round-house of 20 stalls, a blacksmith and repair shop, all of stone. The Railroad House is the principal hotel.

North Platte has improved very rapidly during the last three years, and contains about 800 population. Churches, hotels, country buildings, and scores of dwellings have been built, or are in course of erection. A new bridge has been completed across the South Platte River. A weekly paper—the *Enterprise*—has been established. Settlers' houses, and tens of thousands of cattle, sheep and horses are to be seen in every direction. The advantages of this place, as a stock range and shipping point, exceed all others on the line of road.

North Platte, in its palmyest days, boasted a population of over 2,000, which was reduced in a few months after the road extended, to as many hundreds. Until the road was finished to Julesburg, which was accomplished in June, 1867, all freight for the west was shipped from this point; then the town was in the height of its prosperity; then the gamblers, the roughs and scallawags, who afterward rendered the road accursed by their presence, lived in clover—for there were hard-working, foolish men enough in the town to afford them an easy living. When the town began to decline, these leeches followed up the road, cursing with their Upas blight every camp and town, until some one of their victims turned on them and "laid them out," or an enraged and long-suffering community arose in their own defence, binding themselves together, *a la vigilantes*, and, for want of a legal tribunal, took the law into their own hands, and hung them to the first projection high and strong enough to sustain their worthless carcasses, and the country was rid of their presence. But many "moved on," and we shall hear of them again many times before we are through.

We have said, this place is one of the best locations for a large town on the line of the road. One reason why, is, that the time is not far distant when a railroad must be built up the North Platte River from this city. We know the country well for many hundred miles.

The road, when built, will follow up the Platte to a point near Fort Fetterman, thence strike across a low divide via Curtis Wells, to Fort Reno, on Powder River; thence via Fort Phil. Kearney and Fort Horn, on the Big Horn River, which stream it will follow down and form a junction with the Northern Pacific Railroad, near the junction of the Big Horn and Yellowstone Rivers. Now, O ye spikie drivers, here is a line for you, which passes through a country richer in natural wealth than that along any other railroad organized in the whole great western country. Let us take a look at this section, which is usually designated as the

BIG HORN AND POWDER RIVER COUNTRY.—The Big Horn river rises about latitude 43 deg. in Wyoming Territory, flows nearly due north, and empties into the Yellowstone, in the Territory of Montana. It is the largest branch of the Yellowstone, and is now known only to the hunter, trapper, and distant campaigner, but which will some day be known in the markets of the world for the crops and minerals it will bring to

them. About midway of its course the Big Horn breaks through the mountains, forming one of the largest and grandest cañons in the world. Up to this point it is known on the maps as the Wind river, but from the mountains to the Yellowstone it is the Big Horn proper, and it is of this part of the river that we now propose to write.

All the elements of prosperity and wealth are found in the Big Horn country—soil and climate are all that could be desired. The rivers are large and able to market great crops and stores of minerals.

The mountains furnish plenty of good pine for lumber; coal crops out in places; freestone, clay and limestone are abundant. Iron ore is also found in the mountains, and gold-bearing quartz was discovered in the Big Horn mountains in 1864 and 1865, by a party of Californians. Color of gold can be found in all the streams, and a great many fine specimens of nugget gold have been picked up by the Indians and brought into the forts and camps and traded for sugar and coffee.

The gulches embrace the head-waters of the Big Horn, Powder river, Clear creek, and their innumerable tributaries, in all of which gold has been discovered, and in many places in paying quantities. No finer section of agricultural land can be found in like geographical position than in the valley of the Powder river.

Fish in the streams and game on the plains and in the mountains, are abundant, and almost inexhaustible.

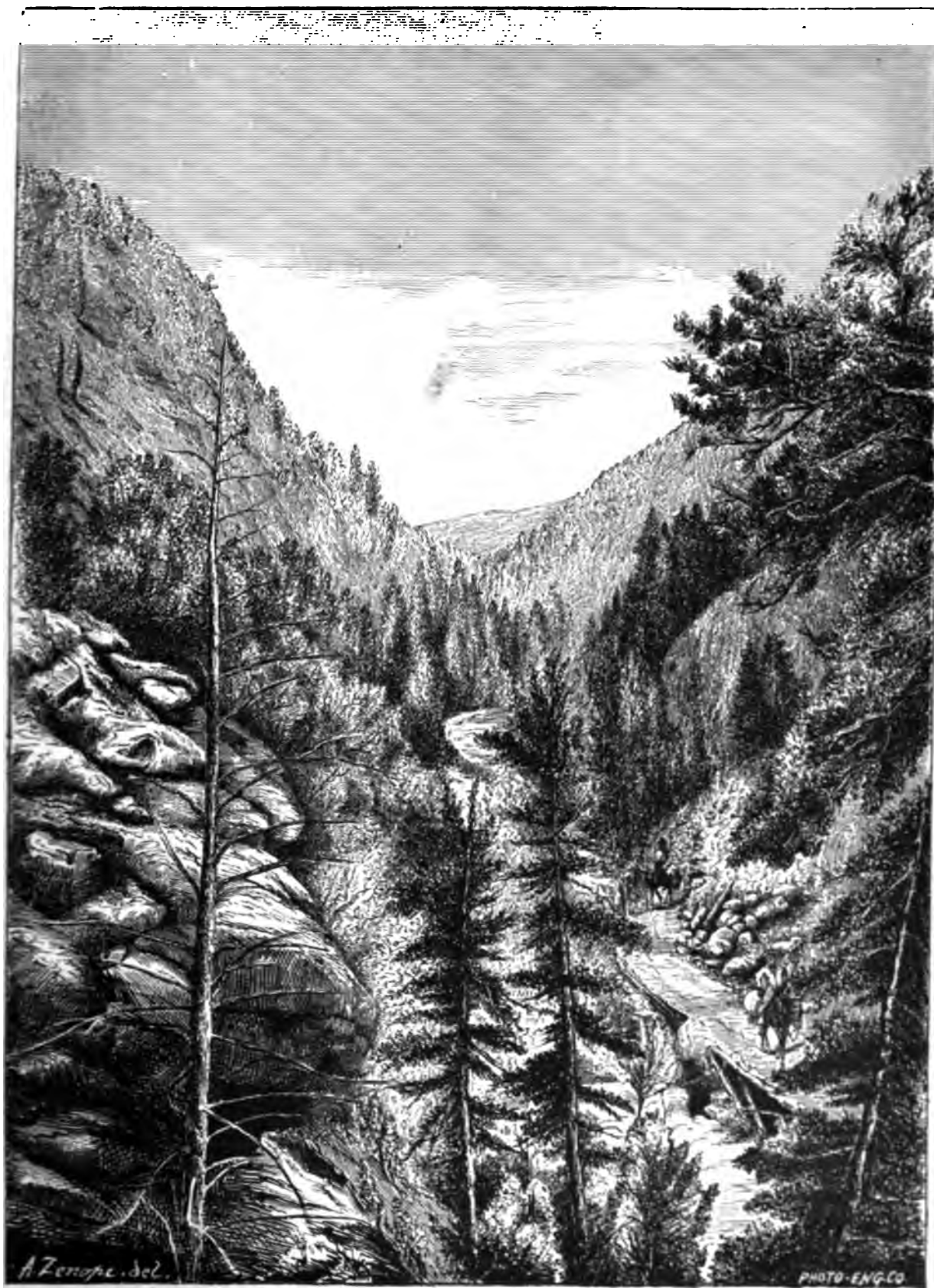
The cost of building a road up the North Platte river, from North Platte city, will not exceed the expense of the construction of the line of the Union Pacific from Omaha to North Platte.

Just after leaving the city for the West, on the south side of the road will be seen a government camp, where soldiers are stationed to guard the bridge, the city, and the situation generally, when necessary.

The country from here west, bears the appearance of a grazing more than an agricultural country, though in places excellent farming land can be found still unoccupied.

NICHOLS—Eight miles from North Platte, is an unimportant side track, where trains seldom stop. After leaving North Platte, the direction of the road is almost due west for 16 miles, to

O'FALLON'S BLUFFS—situated in the sand hills, where the bluffs on the right come close to the river. Gradually we lose sight of the timber, and when we pass the sand bluffs, just above the station, it has entirely disappeared. On the south side of the river are the famous O'Fallon's Bluffs, a series of sand hills interspersed with ravines and gulches, which come close to the river's bank, forming abrupt bluffs, which turned the emigrants back from the river, forcing them to cross these sand hills, a distance of eight miles, through loose yielding sand, devoid of vegetation. Here, as well as at all points where the bluffs come near the river, the emigrants used to suffer severely, at times, from the attacks of the Indians. Opposite, and extending above this point, is a large island, in the river, once a noted camping ground of the Indians. O'Fallon's Bluffs are the first of a series of sand hills, which extend north and south for several hundred miles. At this point, the valley is much narrower than that through which we have passed. Here we first enter the "alkali belt," which extends from this point to Julesburg—about 70 miles. The soil and water are strongly impregnated with alkaline substances. We now leave the best farming lands, and enter the grazing country.



A. Zenop. del.

PHOTO-ENG. CO.

BOULDER CANYON, COLORADO. See page 5.

At certain seasons of the year, passengers should keep their "eye peeled" for buffaloes, as we are now getting into the buffalo range. During the winter of 1873-4 immense numbers roamed over this country, along the road for 100 miles westward.

DEXTER—Is a side track, seven miles west of the bluffs, but trains do not stop.

ALKALI—Is seven miles further.

This station is directly opposite the old stage station of that name on the south side of the river. After leaving the station the road passes through the sand-bluffs, which here run close to the river's brink. A series of cuts and fills, extending for several miles, brings us to the bottom land again.

ROSCOE—Is another small side-track station of no importance, nine miles further.

OGALALLA—Is ten miles from Roscoe. Near this station, several years ago, at a point where the road makes a short curve and crosses the mouth of a ravine, the Indians attempted to wreck a passenger train, by suddenly massing their ponies on the track ahead of the locomotive. The result was, some score or more of the ponies were killed, without damaging the train, while the men used their knives and guns pretty freely on the Indians, who were apparently greatly surprised, and who now call the locomotive "Smoke wagon—big chief! Ugh!! no good!"

BRULE—Is nine miles west, near the old California Crossing, where the emigrants crossed when striking for the North Platte and Fort Laramie, to take the South Pass route.

On the south side of the river, opposite, in plain view, is the old rancho and trading post of the noted Indian trader and Peace Commissioner—Beauvo—now deserted.

BIG SPRING—Is ten miles west of Brule. The station derives its name from a large spring—the first found on the road—which makes out of the bluffs, opposite the station, on the right hand side of the road, and in plain view from the cars. The water is excellent, and will be found the best along this road. After leaving this station, we pass by a series of cuts and fills, and another range of bluffs, cut up by narrow ravines and gorges. At points, the roads run so near the river bank that the water seems to be right under the cars. But emerge again, after eight miles, and come to

BARTON—A signal station of very little importance. Passing on a short distance we can see the old town of Julesburg, on the south side of the river. The town was named after Jules Burg, who was brutally assassinated, as will be related in another part of the book.

JULESBURG—Is ten miles from Barton. Elevation 3,394 feet. Distance from Omaha, 377 miles. Until 1868 this was an important military, freight and passenger station, since when it declined. But time is working wonders.—Soon, on nearing this station, will be heard, "Change cars for all points in Colorado, New Mexico, Arizona, San Diego, Central and South America;" as the Union Pacific Railroad Company are building a road from this place up the north side of the river via Greeley and Denver to Golden City, connecting with the various roads in Colorado, and will prove an invaluable feeder to the main line. The distance from Julesburg to Golden is about 260 miles, through a section of country far more desirable than traversed by the main line, which here turns to the north-west, up the valley of Lodge Pole Creek to near Egbert Station,

about 100 miles distant. The last of Utah and California emigration that came up the Platte, crossed opposite the station, and followed up this Valley to the Cheyenne Pass. The railroad was completed to this point about the last of June, 1867, and all Government freight for the season was shipped to this place, to be re-shipped on wagons to its destination. At that time Julesburg had a population of 4,000; now the town is almost deserted. During the "lively times," Julesburg was the roughest of all rough towns along the Union Pacific line. The roughs congregated there, and a day seldom passed but what they "had a man for breakfast. Gambling and dance houses constituted a good portion of the town; and it is said that morality and honesty clasped hands and departed from the place. We have not learned whether they have returned; and really we have our doubts about their ever having been there.

FORT SEDGWICK—was established May 19, 1864, by the Third United States Volunteers, and named after Major-General John Sedgwick, Colonel Fourth Cavalry, U. S. A., who was killed in battle at Spottsylvania Court House, Virginia, May 9th, 1864. It is located in the north-east corner of Colorado Territory, on the south side of the South Platte River, four miles distant, on the old emigrant and stage road to Colorado, in plain view from the cars. Latitude 31 deg., longitude 102 deg. 30 min.—now abandoned.

THE PLATTE RIVER, west of North Platte city. This stream is called the South Fork of the Platte. We have ascended it, almost on its banks, over 350 miles, and are now about to leave. It rises in the Middle Park of the Rocky Mountains in Colorado. The valley extends from Julesburg up the river about 275 miles, to where the river emerges from the mountains. The average width of the valley is about three miles, the soil of which affords excellent grazing.

CHAPPELL—Ten miles from Julesburg, is a side track where passenger trains do not stop.

LODGE POLE—Is nine miles from Chappell. The valley is narrow, but with the bluffs affords the finest of grazing range, and large herds of cattle, and numerous bands of antelope can be seen while passing on up the valley.

COLTON—Is another new station, ten miles from Lodge Pole. It was named in honor of Francis Colton, Esq., a former General Passenger Agent of the road.

SIDNEY—Seven miles from Colton, is a regular eating station for all trains East and West. Meals \$1, and quite as good as will be found at any station on the road. Trains stop 30 minutes.

The government has established a military post at this station, and erected extensive barracks and warehouses. The post is on the south side of the track, a little to the east of the station. The old "Post Trader" at this place, Mr. James A. Moore, recently deceased, was an old pioneer and the hero of the "Pony Express." June 8th, 1860, he made the most remarkable ride on record. "Jim" was at Midway stage station on the south side of the Platte, when a very important government despatch arrived for the Pacific coast. Mounting his pony, he left for Julesburg, 140 miles distant, where, on arriving, he met a return despatch from the Pacific, equally important; resting only seven minutes, and, without eating, returned to Midway, making the "round trip"—280 miles—in fourteen hours and forty-six minutes. The despatch reached Sacramento from St. Joseph, Mo., in eight days, nine hours and forty minutes.

The railroad company have a round-house, of ten



WASH-A-KIE—Peace Chief of the Shoshone Indians.

stalls, and machine shop at this place, which add to the interest and business of the station. Sidney has improved very much during the last few years, and is now an important "out-fitting" point for expeditions to the Black Hill gold mines.

BROWNSON—Is nine miles west of Sidney. Passenger trains don't stop. The station was named after Colonel Brownson, who has been with the "Union Pacific" from the first, and for a long time General Freight Agent. Now on the Northern Pacific.

POTTER—Comes next, ten miles from the last station. Large quantities of wood and ties are usually stored here, which are obtained about 20 miles north of this point, on Lawrence Fork and Spring Cañon, tributaries of the North Platte river. Potter, although not a large place, is situated near

PRAIRIE DOG CITY—One of the largest cities on the whole line of the road.

At this point, and for several miles up and down the valley, the dwellings of the prairie dogs frequently occur, but three miles west of the station they are found in large numbers, and there the great prairie dog city is situated. It occupies several hundred acres on each side of the road, where these sagacious little animals have taken land and established their dwellings without buying lots of the company. (We do not know

whether Mr. Davis, land commissioner, intends to eject them or not.) Their dwellings consist of a little mound, with a hole in the top, from a foot to a foot and a half high, raised by the dirt excavated from their burrows. On the approach of a train, these animals can be seen scampering for their houses; arrived there, they squat on their hams or stand on their hind feet, barking at the train as it passes. Should any one venture too near, down they go into their holes, and the city is silent as the city of the dead.

It is said that the opening in the top leads to a subterranean chamber, connecting with the next dwelling, and so on through the settlement; but this is a mistake, as a few buckets of water will drown out any one of them. The animal is of a sandy-brown color, and about the size of a large grey squirrel. In their nest, living with the dog, may be found the owl and rattlesnake, though whether they are welcome visitors is quite uncertain. The prairie-dog lives on grasses and roots, and is generally fat; and by many, especially the Mexicans, considered good eating, the meat being sweet and tender, but rather greasy, unless thoroughly par-boiled. Wolves prey on the little fellows, and they may often be seen sneaking and crawling near a town, where they may, by chance, pick up an unwary straggler. But the dogs are not easily caught, for some one is always looking out for danger, and on the first intimation of trouble, the alarm is given, and away they all scamper for their holes.

COURT-HOUSE ROCK—About 40 miles due north from this station is the noted Court-House Rock, on the North Platte river. It is plainly visible for 50 miles up and down that stream. It has the appearance of a tremendous capitol building, seated on the apex of a pyramid. From the base of the spur of the bluff, on which the white Court-House Rock is seated, to the top of the rock, must be near 2,000 feet. Court-House Rock to its top is about 200 feet. Old California emigrants will remember the place and the many names, carved by ambitious climbers, in the soft sand-stone, of which it is composed.

CHIMNEY ROCK—Is about 25 miles up the river from Court-House Rock. It is about 500 feet high and has the appearance of a tremendous cone-shaped sand-stone column, rising directly from the plain, the elements having worn away the bluffs, leaving this harder portion standing.

BENNETT—Is the next station, nine miles west of Potter, but trains seldom stop.

ANTELOPE—Nine miles west of Bennett, is situated at the lower end of the Pine Bluffs, which at this point is near the station.

We enter what the plains-men call "the best grass country in the world," as well as one of the best points for antelope on the route. The valley, bluffs and low hills are covered with a luxurious growth of Gramma or "bunch" grass, one of the most nutritious grasses grown. Stock thrive in this section all the season, without care, excepting what is necessary to prevent them from straying beyond reach. Old work-oxen that had traveled 2,500 miles ahead of the freight wagon during the season, have been turned out to winter by their owners, and by the following July they were "rolling fat"—fit for beef. We know this to be a fact from actual experience.

This country is destined to become, and the day is not far distant—the great pasture land of the continent. There is room for millions of cattle in this unsettled country, and then have grazing land enough to spare to feed half the stock in the Union. This grazing section extends for about 700 miles, north and south,

on the eastern base of the Rocky Mountains, with an average width of 200 miles, besides the vast area included in the thousands of valleys, great and small, which are found in the mountain ranges. From the base of the mountains nearly across this grazing belt, cattle find abundant water, for the mountain valleys are each supplied with creeks and rivers. Springs abound in various sections, so that no very large tract of land is devoid of natural watering places. The grass grows from nine to twelve inches high, and is peculiarly nutritious. It is always green near the roots, summer and winter. During the summer the dry atmosphere cures the standing grass as effectually as though cut and prepared for hay. The nutritive qualities of the grass remain uninjured, and stock thrive equally well on the dry feed. In the winter what snow falls is very dry, unlike that which falls in more humid climates. It may cover the grass to the depth of a few inches, but the cattle readily remove it, reaching the grass without trouble.

Again, the snow does not stick to the sides of the cattle and melt there, chilling them through, but its dryness causes it to roll from their backs, leaving their hair dry. The cost of keeping stock in this country is just what it will cost to employ herders—no more. The contrast between raising stock here and in the East must be evident. Again, by stocking this country with sheep, an untold wealth would be added. The mountain streams afford ample water power for manufacturing, and wool enough could be grown here with which to clothe all the people of the Union, when manufactured into cloth. With the railroad to transport the cattle and sheep to the Eastern market, what is there to prevent immense fortunes from being realized here by stock-raising? Already Colorado contains some millions of sheep and vast herds of cattle. One man in Southern Colorado has over 40,000 head of the former kind of stock, and yet Colorado possesses no advantages for this business which is unshared by this portion. The time will come when the Eastern bound trains will be loaded with cattle and sheep for the Chicago, New York and Boston markets; for, to this section must the East eventually turn for their supply of meat. We are well acquainted with parties who, but a few years since, started in the business of stock-raising in this country and in Colorado—with but limited means—that now are the owners of large herds of stock, which they have raised without ever feeding them one pound of hay or grain.

No drought, which has been experienced in these Territories, has ever seriously affected the pasturage, owing to the peculiar qualities of the grasses indigenous to the country.

BUSHNELL—Ten miles west of Antelope—is an unimportant side track, near the boundary line between Nebraska and Wyoming Territory. Passenger trains do not stop.

PINE BLUFFS—Is ten miles further west. During the building of the road, this place was known as "Rock Ranch"—and a tough ranch it was. Considerable pitch pine wood was cut for the railroad in the bluffs, a few miles to the southward, from which the station derives its name. The bluffs are on the left hand side of the road, and at this point are quite high and rocky, extending very near the track.

FORT MORGAN was established in May, 1865, abandoned in May, 1868, and its garrison transferred to Laramie. It is about 60 miles north of this station, on the North Platte River, at the western base of what is known as Scott's Bluffs. Latitude 40 deg. 30 min.; longitude 27 deg.

EGBERT—Eleven miles from Pine Bluffs, is an unimportant station, where cars seldom stop. Near this point we leave Lodge Pole Creek. From this point to the source of the stream in the Black Hills, about 40 miles away, the valley presents the same general appearance until it reaches the base of the mountains. Bear, deer and wolves abound in the country around the source of the stream, and herds of antelope are scattered over the valley. At one time beavers were plenty in the creek, and a few of these interesting animals are still to be found in the lower waters of the stream, near to its junction with the Platte. This valley was once a favorite hunting-ground of the Sioux and Cheyennes, who long resisted the attempts to remove them to the reservation to the northward.

HILLSDALE—Is twelve miles beyond Egbert—another small station. It was named after a Mr. Hill, one of the engineer party who was killed near this place by the Indians while he was engaged in locating the present site of the road.

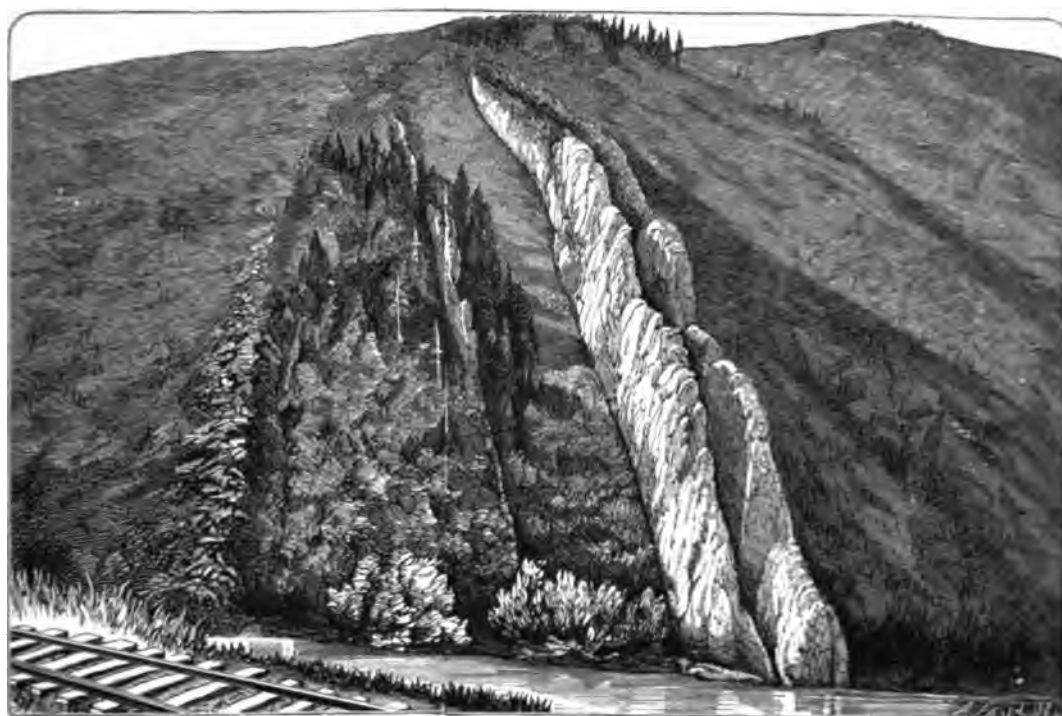
About 50 miles to the south is "Fremont's Orchard," on the South Platte river, about 65 miles below Denver City, Colorado, and in that Territory. It was named after Col. Fremont, who discovered this point in his exploring expedition. It consists of a large grove of cottonwood trees, mostly on the south side of the river. The river here makes an abrupt bend to the north, then another to the south, cutting its way through a high range of sand hills—the third range from the Missouri river. Where the river forces its way through the bluffs, they are very high and abrupt on the south side. The two bends leave a long promontory of sand hills, the end of which is washed by the waters. At a distance, this grove of cottonwoods on the bottom land reminds one of an old orchard, such as are often seen in the Eastern States.

Near Fremont's Orchard is located the Green Colony, at Green City, which numbers about 200.

Passing on from Hillsdale up a ravine, which gradually becomes narrower as we ascend, with bluffs on either hand, about ten miles the train gradually rises into the table land, and then, if the day be a fair one, the traveler can catch the first glimpse of the Rocky Mountains, directly ahead. On the right we can catch glimpses of the Black Hills, stretching their cold, dark ruggedness far away to the right, as far as the eye can see; but the bold, black line—that dark shadow on the horizon, which will soon take tangible shape and reality, but which now seems to bar our way as with a gloomy impenetrable barrier, is the "Great Rocky Mountain Chain," the back-bone of the American continent, though bearing different names in the southern hemisphere. The highest peak which can be seen rising far above that dark line, its white sides gleaming above the general darkness, is Long's Peak, one of the highest peaks of the continent. Away to the left rises Pike's Peak, its towering crest robed in snow. It is one of those mountains which rank among the loftiest. It is one of Colorado's noted mountains, and on a fair day is plainly visible from this point, 175 miles distant. Should the air be very clear, farther away still, and more to the left, the long line of the Spanish peaks can be distinctly traced with a good glass.

ARCHER—Situated on the high table-land, where the cars seldom stop—is eleven miles from Hillsdale; and a little farther on, the cars pass through the first snow-shed on the Union Pacific Road, and enter Crow Creek Valley.

After passing through a series of cuts and fills, the track of the Denver Pacific Railroad can be seen on the left side, where it passes over the bluffs to the south-



DEVIL'S SLIDE, WEBER CANYON. (see page 80.)

east. Directly ahead can be seen, for several miles, the far-famed "Magic City of the plains."

CHEYENNE—Eight miles from Archer, is the largest town between Omaha and Ogden. Passenger trains from the east and west stop here 30 minutes, for dinner—and no better meals can be had on the road than at the Railroad House. Distance from Omaha, 516 miles; from Ogden, 516 miles—just *half* the length of the Union Pacific Road; distance to Denver, Colorado, 106 miles.

Cheyenne is the county seat of Laramie County. Population about 3,000. Elevation 6,011 feet. It is situated on a broad plain, with Crow Creek, a small stream, winding around two sides of the town. The land rises slightly to the westward. To the east it stretches away for miles, apparently level, though our table of elevations show to the contrary. The soil is composed of a gravelly formation, with an average loam deposit. The sub-soil shows volcanic matter, mixed with marine fossils, in large quantities. The streets of the town are broad and laid out at right angles with the railroad.

Schools and churches are as numerous as required, and society is more orderly and well regulated than in many western places of even older establishment. The church edifices are the Presbyterian, Congregational, Episcopal, Methodist, Catholic, and several of other denominations. The city boasts of a \$40,000 Court-House, and many new buildings during the past year; also a grand lake or reservoir for supplying the city with pure water, conducted by canal from Crow Creek, from whence smaller branches run along the sidewalks for the irrigation of gardens, trees and shrubbery, which will soon make the city a place of surpassing beauty. It also boasts of a race course and some good "step-pers."

The Cheyenne, Iron Mountain and Pacific Railroad

Company, propose to build towards Montana, to the eastward of the Big Horn Mountains.

The *Leader*, daily and weekly, established in September, 1867, and a monthly magazine are published here.

Cheyenne has the usual local manufactures, boots and shoes, saddlery and harness making, being carried on to some extent. The item of saddles is one of great importance on the plains.

The saddle of the plains, and of most Spanish countries, is a different article altogether from the Eastern "hogskins." When seated in his saddle, the rider fears neither fatigue nor injury to his animal. They are made for use—to save the animal's strength, as well as to give ease and security of seat to the rider. The best now in use is made with what is known as the "California Tree."

PRECIOUS GEMS—From the time the hardy miner first discovered the yellow metal in the wilds of California, the art of dressing precious gems has been practiced in a rude way in all the mining localities. The lucky miner who found a "*chispita*" of more than ordinary beauty, would send it to the "dear ones at home" in its crude state, if he were devoid of mechanical ingenuity or knowledge. On the other hand, if he possessed any knowledge of tools, and often when he did not, he would pass his spare hours in hammering out a ring, cross, or some other ornament. Rude and rough the conception and workmanship of the trifle he humbly, but it was still as dearly prized a toy, it was of *his* own labor to those who received it, than though he possessed the exquisite finish of the finest specimens of the art. And as rare and costly gems were occasionally found, they, too, were incorporated now in the presents sent to absent friends; and ere long the diamond, emerald and mesagrite, began to attract the attention of the best jewelry houses in the world.

The manufacture of mesagrite jewelry has grown

into an extensive trade, since it has been discovered that this beautiful stone can be procured in large quantities in Wyoming Territory. (At Church Buttes and Millerville they are found in greater quantities and of better quality than those which are gathered elsewhere.) Of the most beautiful and variegated shades of coloring—of very hard, close and fine grain, they receive a brilliant polish under the hand of the skillful lapidary, and when mounted in the rich setting of California or Colorado gold, they form as rich and tasteful ornaments as can be produced from the shops of either the old or new world.

Cheyenne has become quite noted for its "Moss Agates." The pioneer firm of Josline & Park, located here, are the most extensive manufacturers in the western country, and have by fair dealing made a name for reliability throughout the world.

The railroad company buildings are of stone, brought from Granite Cañon, 19 miles west. They consist of a round-house of 20 stalls, and machine and repair shop. The freight office and depot buildings are of wood. The freight office was opened for business during the first part of November, 1867, at which time the road was completed to this station.

No land is cultivated around Cheyenne, except a few small gardens along Crow creek. The soil is good, and the hardiest kinds of vegetables and grains could be raised successfully with irrigation. Grazing is the main feature of the country.

Iron Mountain, 35 miles north, on the Chugwater, it is said, contains very rich iron ore—almost pure. The company controlling this mine once projected a railroad from Cheyenne to the mine, and the erection of smelting works in the city for working the ores, but very little has been done—except talk.

EARLY TIMES.—On the fourth day of July, 1867, there was *one house* in Cheyenne—no more. At a later period there was 6,000 inhabitants in the place and about the vicinity; but as the road extended westward, the floating, tide-serving portion followed the road, leaving the more permanent settlers, who have put up substantial buildings of brick and stone, wherein they are carrying on all branches of trade which mark a thriving and steadily growing city.

Cheyenne at one time had her share of the "roughs" and gambling hells, dance-houses, wild orgies; murders by night and day were rather the rule instead of the exception. This lasted until the business men and quiet citizens tired of such doings, and suddenly an impromptu vigilance committee appeared on the scene, and several of the most desperate characters were found swinging from the end of a rope, from some convenient elevation. Others taking the hint, which indicated they would take a rope unless they mended their ways, quietly left the city. At present Cheyenne is orderly and well-governed.

In the fall of 1869, Cheyenne suffered severely by a large conflagration which destroyed a considerable portion of the business part of the town, involving a loss of half a million dollars. The inhabitants, with commendable zeal, have rebuilt, in many instances with more durable material than before.

BLACK HILL'S GOLD MINES.—Many claim the route from Cheyenne to these "new digging" possesses superior advantages over all others; the distance is about 190 miles. At this time (May, 1875) we are informed that an order for a number of new Concord coaches has been given by Mr. Homans, of Omaha, who will place them on this route as soon as the Government removes the restrictions, which at present retards the settlement of the country.

FORT D. A. RUSSELL. This post was established July 31, 1867, by General Angur, and intended to accommodate sixteen companies. It is three miles from Cheyenne, on Crow creek, which washes two sides of the enclosure. Latitude 41 deg. 08 min.; longitude 104 deg. 45 min. It is connected by side-track with the Union Pacific Railroad at Cheyenne. The quarter-master's department—12 store-houses—is located between the fort and the town, at "Camp Carling." Several million pounds of government stores are gathered here, from which the forts to the north-west draw their supplies. The reservation on which the fort is situated was declared by the President, June 28th, 1869, and contains 4,512 acres.

FORT LARAMIE. This fort was established August 12th, 1869, by Major W. F. Sanderson, Mounted Rifles. The place, once a trading post of the North-western Fur Company, was purchased by the Government, through Brice Husband, the company's agent, for the site of a military post. It was at one time the winter quarters of many trappers and hunters. It is also noted as being the place where several treaties have been made between the savages and whites—many of the former living around the fort, fed by Government, and stealing its stock in return. The reservation declared by the President on the 28th of June, 1869, consists of 54 square miles. It is situated 89 miles from Cheyenne—the nearest railroad station—on the left bank of the Laramie, about two miles from its junction with the North Platte, and on the Overland Road to Oregon and California.

The only regular conveyance to the Post is by Government mail ambulance from Cheyenne. Latitude 42 deg. 12 min. 38 sec.; longitude 104 deg. 31 min. 26 sec.

FORT FETTERMAN.—This post was named in honor of Brevet Lieutenant-Col. Wm. J. Fetterman, Captain 18th Infantry, killed at the Fort Phil. Kearney massacre, December 21st, 1866. Established July 19th, 1867, by four companies of the Fourth Infantry, under command of Brevet Colonel William McE. Dey, Major Fourth Infantry. It is situated at the mouth of La Poole Creek, on the south side of the North Platte river, 135 miles from Cheyenne, 90 miles south of Fort Reno, and 70 miles north-westerly from Fort Laramie. Latitude 42 deg. 49 min. 08 sec., longitude 105 deg. 27 min. 03 sec. The reservation of sixty square miles was declared June 28th, 1869. Cheyenne is the nearest railroad station.

FORT CASPER.—Was situated on the North Platte river, at what was known as "Old Platte Bridge," on the Overland Road to California and Oregon, 55 miles north of Fort Fetterman; was built during the late war; re-built by the 18th Infantry in 1866, and abandoned in 1867. Its garrison, munitions of war, etc., were transferred to Fort Fetterman. The bridge across the Platte at this place cost \$65,000—a wooden structure, which was destroyed by the Indians shortly after the abandonment of the post.

FORT RENO.—was established during the war by General E. P. Connor, for the protection of the Powder river country. It was situated on the Powder river, 225 miles from Cheyenne, 90 miles from Fort Fetterman, and 65 miles from Fort Phil. Kearney. It was re-built in 1866 by the 18th Infantry, and abandoned in July, 1868.

FORT PHIL. KEARNEY.—Was established July, 1866, by four companies of the 18th Infantry, under command of Colonel H. B. Carrington, 18th Infantry. This post was situated 290 miles north of Cheyenne, in the very heart of the hunting grounds of the northern Indians, and hence the trouble the troops had with the Indians



MONUMENT ROCK, BLACK HILLS, U. P. R. R.

in establishing it. Near this post is where the great massacre took place in 1866. It was abandoned in July, 1868.

FORT C. F. SMITH—Was established in 1866, by Brevet Lieutenant-Colonel N. C. Kimsey, Captain 18th Infantry, and two companies of that regiment. It was at the foot of the Big Horn Mountain, on the Big Horn river, 90 miles from Fort Phil. Kearney, and 380 from Cheyenne. It was abandoned in July, 1868.

TO COLORADO.

In connection with Cheyenne, we have spoken of the Denver Pacific Railroad, which terminates at this point. Here travelers for the South will have to stop over twelve hours, and then take the cars on the Denver Pacific Railroad for Denver, Golden City, Central City, Pueblo, Santa Fe, and all points in Colorado and New Mexico. We will now proceed to give a short view of this road, Colorado and its towns and resources, for the benefit of those who are about to visit this land for the first time. Commencing with the

DENVER PACIFIC RAILROAD: In the fall of 1867, this company was organized at Denver City, Colorado Territory, the object of which was to connect that city by rail and telegraph lines with the Union Pacific Railroad at Cheyenne. The distance to be overcome was 260 miles, through a country possessing no serious obstacles, and many favorable inducements to the enterprise. For a part of the way, the country along and for some distance on either side of the line is a rich farming section, the remainder of the road being through the celebrated grazing lands extending southward from Cheyenne. The desire to open up this rich region, to connect the city of Denver with the trans-continental railroad, by which to afford a way for cheap and fast freight and rapid transit of passengers, induced the people of the Territory of Colorado to take hold of the scheme, when proposed, with commendable zeal and alacrity. Subscriptions for about one fourth the amount of money required were made in a few days, and the county bonds of Arapaho county were almost unanimously voted to the amount of \$500,000, and work commenced.

The road was completed to Evans early in the fall of 1869, and to Denver the 24th day of June, 1870.

During the spring of 1872, this road was sold to the Kansas Pacific Railroad Company, which enables that Company to control a through line from Kansas City, Mo., to Cheyenne. Distance, 743 miles, where a junction is made with the Union Pacific Railroad.

The original route proposed for the Kansas Pacific Railroad was to commence at Kansas City, in the great bend of the Missouri; thence westward via Fort Lyon, on the Arkansas river, through New Mexico and Arizona to San Diego, on the Pacific Ocean; thence along the coast to San Francisco. Whether it is to be completed or not, remains to be seen. Cars now run to Fort Lyon.

The principal stations on the Denver Pacific Railroad are: Summit, 10 miles; Carr, 21; Perce, 41; Greeley, 55; Evans, 59; Johnson, 75; Hughes, 89; Denver, 106.

GREELEY is the first town of note on the road. This town was laid out in May, 1870, by the Greeley colony, under the fostering care of the late Hon. Horace Greeley, of the *New York Tribune*. The colony control about 100,000 acres of as fine land as can be found in the Territory. Extensive irrigating ditches have been "taken out," and water from the Cache a la Poudre river furnishes ample water for all purposes. This town has increased rapidly; population nearly 2,000, with ample churches, hotels, schools, etc. The *Greeley Tribune* and the *Sun*, weeklies, are published here. One noted and glorious feature of the place is the absence of all intoxicating drink. It's tough on the "old soakers," who now have to "pack in" their "nips" on the sly, or be sick and get a doctor to give a prescription; but it is said that Greeley abounds in doctors and druggists, and they are *so accommodating*.

From Greeley it is 30 miles to Burlington; Boulder, 43; Caribou, 59; Denver, 52; and Central City via Boulder, 78 miles.

EVANS—A small town, the county seat of Weld County; is 59 miles from Cheyenne, on the South Platte River. It is the head-quarters of the St. Louis Western Colony and the New England Colony of Boston, Mass., which control about 60,000 acres of land. The *Journeal*, weekly, and *Colorado Farmer*, monthly, are published here. Population about 800.

DENVER CITY is the county seat of Arapaho County, and the capital of the Territory. It is situated on the Platte River, at the junction of Cherry Creek, 6,000 feet above the level of the sea, 13 miles from the east base of the mountains, which protect it from the cold winds of the winter. The mountains extend north and south as far as the eye can trace their rugged height. The highest points, Long's Peak, to the north, and Pike's Peak, to the south, are in full view, towering far above the tops of the surrounding mountains. An open, rolling country surrounds the city, being the outer border of that immense plain, which stretches away to the waters of the Missouri River, 600 miles to the eastward. Denver is built up principally with brick of the best quality, produced near the city. The population has nearly doubled within the last three years, and is now near 14,000. It has many churches, synagogues, and ample common schools, books, manufacturing, Masonic, Odd Fellow, and many other societies and clubs. It has four daily newspapers, eleven weeklies, and several monthly publications; a United States mint, and five steam railroad lines, with water works, gas works, horse railroads—in fact, all the "trappings of improvement." Denver abounds in hotels, big hotels and little hotels, but the Inter-Ocean, Grand Tonic, Sargents, and Broadwell are the principal ones.

What cannot be found in Denver, you need not hunt for in the West.

The State Agricultural Society has 40 acres of ground adjoining Denver, where stalls, etc., have been erected for the accommodation of animals at the annual fairs. A half-mile race track is laid out, and the buildings and land enclosed with a concrete wall, the whole costing about \$10,000.

The Ford Park Association have a race track about two miles northeast of the city; it is handsomely enclosed, and kept in good repair. On every afternoon the fast horses of Denver and their fast drivers can be seen enjoying the smooth track at 2:40 speed.

The Denverites are a reading people, and support more daily, weekly, and monthly publications than any city of its size in the United States. The principal dailies, are: *The Rocky Mountain News*, the oldest in the Territory, it was established in 1859, by Wm. N. Byers, Esq., its present editor and proprietor; next comes the *Tribune*, *Times*, and *The World*, each of which issue weeklies.

The Rocky Mountain Herald—who has not heard of Goldrick's *Herald*?—heads the list of the exclusively weeklies; then comes the *Agriculturalist*, *Farmer*, *Mirror*, *Presbyterian*, *Journal*, and the *Courier*—the two latter are German.

THE BOARD OF TRADE was organized in Denver in 1867, by the capitalists and business men of the city, specially to build the Denver Pacific Railroad, which it aided to a great extent. The Board has taken the lead since, however, in all public enterprises, and has been very instrumental in promoting the growth and prosperity of the city. This body very kindly endorsed the writer's plan for a narrow gauge railroad to the mines, which he advocated strongly, and which was presented to them in the winter of 1867-8. They said it was a "good thing"—with a pat on the back—"but you are not in the ring"; then went ahead with their *broad gauge*, and some of the members, a few days after our plan was made known, organized the Denver, South Park, and Rio Grande R. R., and never said "Croftutt" once. They are good fellows, these Denver men—but they never divide a loaf, if they can possibly swallow it at all.

NARROW GAUGE RAILROADS.—We have contended for over ten years that the *narrow gauge* is the only system of railroads applicable to a rough, mountainous country like Western Colorado. A narrow track and light cars can wind in and out among the ravines, hills, and gulches where it would be impossible to build a large iron road—or at least unprofitable.

It is worthy of serious consideration on the part of those interested in the internal improvements of their country, that the benefits accruing therefrom shall belong to themselves as far as possible, and not to be taken from the country to pay interest on foreign capital. The citizens of a State should always control a State's improvement, thereby preventing monopolies from ruling or oppressing them.

The people of Colorado can build narrow gauge roads themselves, and retain the cost of their construction and the profits accruing from working them in their own country, among their own people. Whenever "outside" parties or capital engage in building railroads—particularly to develop local interests—in any section of the country, the people of that country, from that time, are the slaves of such foreign interests, and are compelled, sooner or later, to pay the bill, interest and principal, ten-fold.

When the narrow gauge system was first advocated by the writer in Denver, there was not a foot of railroad track in Colorado, and not a shovel-full of dirt had

been moved to construct one. The nearest lumber had to be hauled on wagons, from 35 to 60 miles, and sold in Denver, from \$50 to \$100 per thousand feet. Wood had to be hauled over 25 miles, and at times sold as high as \$80 per cord. Coal was hauled from 15 to 23 miles, and sold from \$12 to \$30 per ton. By the building of the narrow gauge at that time, only a distance of 25 miles, inexhaustible supplies of timber, lumber, fire-wood, coal, building-rock, lime-stone, and many other necessities, could be landed in the valley; then the immense beds of gold, silver and copper ores could be removed to smelting furnaces that could be erected in the valley for smelting, which could be done a great deal cheaper than in the mountains; all of which could be transported in this manner at a small fraction of the above prices, thus rendering the narrow gauge, when completed, a most profitable investment to the owners, as well as a benefit to the people at large.

Time and circumstances have finally made the narrow gauge a public necessity, as already quite a number of them have been built, and others are projected leading to almost every mine and old stock ranch in the Territory.

THE DENVER & RIO GRANDE Railroad, the first three foot gauge constructed in Colorado, is completed over 100 miles to the southward to Pueblo, on the Arkansas River, with Santa Fe and the old City of Mexico for its objective point. Let us step into the cosy little cars, and see something of the country on the line. But first we had better call on Mr. Dodge, and purchase tickets, as there are no "passes" on this road; we can't dodge Dodge, should we try. The line of road follows up the east bank of the Platte River, about 15 miles; thence up Plum Creek, and passes along the base of the mountains, through extensive tracts of timber land to the "divide," between the waters of the Platte and Arkansas Rivers; thence down Monument Creek, making 76 miles from Denver to

COLORADO SPRINGS.—This city was laid out in July, 1871, and settled by the Fountain Colony. It is situated near the junction of Monument Creek with the Fountain Qui Bouille, and contains about 1,000 inhabitants. The citizens have erected some very fine buildings, which include churches, schools, hotels, etc. The streets and avenues are from 100 to 140 feet in width. Along the avenues double rows of trees have been set out through the centre, which gives three side-walks, along which the sparkling waters are ever running from the large canals built by the citizens for irrigating purposes. The country adjacent is fine farming land, and many large droves of horses and cattle as well as herds of sheep are grazed in this section.

Colorado Springs has become quite noted as a tourist's resort. The fine accommodations, magnificent mountain views, the soda springs, the garden of the gods, the petrified stumps, the monument towers, and the ramble around and upon the mountains—even to the summit of the towering old Pike's Peak, with an altitude of over 14,000 feet—all this unsurpassed scenery can be viewed and visited with a convenience and ease rarely met with at any tourist resort in this country.

The *Gazette*, a weekly newspaper, and *Out West*, a monthly magazine, are published here.

COLORADO CITY is situated at the base of Pike's Peak, two miles west of Colorado Springs, and contains about 300 inhabitants. It was the first settlement in Colorado (1858), and is the county seat of El Paso county.

The Fountain Qui Bouille, a small stream formed from springs and melted snows around the base and upon the summits of the mountain, supplies the town



GARDEN OF THE GODS—PIKE'S PEAK IN THE DISTANCE. (See page 58.)

with water, which is conducted through the streets, and is also used for irrigating purposes.

GARDEN OF THE GODS. About two miles west is a singularly wild and beautiful place, to which some poetic individual has given the title which heads this paragraph. Two high ridges of rock rise perpendicularly from the valley to a height of 200 feet or more, but a few yards apart, forming a lofty enclosure, which embraces a beautiful miniature valley, which seems to nestle here away from the gaze of the passer-by in quiet, romantic grandeur. (See illustration, page 57.)

MANITOU—Or the Soda Springs, are situated near the base of Pike's Peak, about four miles west from the old town, in as romantic a little nook as one could conceive. The springs are four in number, and it is claimed the waters contain medicinal qualities; one thing is certain, they are very pleasant to drink, and persons soon acquire a desire to drink them. The early emigrants in 1858-9, used the waters of these springs for making bread, only requiring to add a little acid—cream tartar, to make a very fine article. Even cattle would come for many miles to drink the waters.

Prof. Frazer's analysis gives the following: Carbonate of lime, 92.25; carbonate of magnesia, 1.21; sulphate of lime, chloride of calcium, and chloride of magnesia, .23; silica, .50; vegetable matter, .20; moisture and loss, 4.61.

From Colorado Springs the cars glide on down the Fountain Qui Bouille, through a country well settled and well cultivated, to

PUEBLO. This city is located in the rich Arkansas valley, on the Arkansas river, near its junction with the Fountain Qui Bouille, and contains about 3,500 inhabitants. It is the county seat of Pueblo county, and besides the Denver and Rio Grande, is connected by rail with Cañon City, 43 miles to the westward, up the Arkansas River. A route to the east will soon be open via Atchison, Topeka, and Santa Fe Railroad; a line is also completed from the Kansas Pacific at Kit Carson. The *Chieftain*, a daily and weekly; the *People*, a weekly; and the *Advocate*, are newspapers published here.

Pueblo is the centre of the richest agricultural district in Colorado. As a range for cattle and sheep, Pueblo and the adjoining counties, when the mild winters, light snow fall, and rich and nutritious bunch grass are considered, are par excellent.

The fine water-power available, and these broad, fertile plains and productive uplands, on which roam so many thousand sheep, point to the probable fact that woolen manufactories will soon be established here. The citizens of this section of country cannot afford to send their wool to a foreign market, when they have every requisite for manufacturing it at home. If wool buyers can afford to purchase their wools and freight them long distances, and then manufacture them at a profit, surely the citizens could manufacture them at home by their own machinery, for the item of freight would pay the difference in the price of labor.

Colorado has advantages, which, if improved, will render her the great wool and woolen goods producing country of the Union.

Cañon City, situated at the very gate of the mountains, 45 miles west of Pueblo, is reached by the Cañon City branch of the Rio Grande Railroad, and possesses some of the most attractive scenery in Colorado. But we must return to Denver, and this time will take the cars of the Colorado Central Railroad for the mountains.

GOLDEN CITY—County seat of Jefferson county, is situated nearly due west from Denver 13 miles on Clear Creek, or Vasquez Fork, near where it debouches from the mountains. By Colorado Central railroad

Golden is 17 miles from Denver. The town contains about 1,300 inhabitants, a pottery and paper mill—the only ones in the Territory; also, flour and saw mills, and a great many other manufactories. The place is well supplied with schools, churches, etc. The *Colorado Transcript* is published here weekly, by George West, an old pioneer of the early days. The *Colorado Globe*, is a weekly. Some quartz mines are found here, and the whole section is underlaid with coal mines of good quality, which are successfully worked.

Clear Creek rises about 60 miles from the city, emptying its waters into the Platte four miles below Denver. The stream affords great natural advantages for manufactories, the water power being unlimited, and mill sites numerous.

Narrow-gauge railroads are in operation along the mountains, north and south; also one up Clear Creek Cañon, to the rich silver and gold mining districts of Gilpin and Clear creek counties, in which are located the cities of Central, Black Hawk, Georgetown, Idaho, and Empire.

Taking the Colorado Central again, the little train glides on up Clear Creek Cañon, affording views of most magnificent scenery. (See illustration, page 43.)

BLACK HAWK AND CENTRAL CITIES are in Gilpin county, lying about two miles from each other, on Gregory's gulch; and really constitute one town, although possessing two distinct organizations and governments. Altitude of Central, 8,300 feet; Black Hawk about 200 feet lower. They are reached by trains on the Colorado Central R. R., and situated 21 miles west of Golden, and 38 miles west from Denver, and contain, in the aggregate, from 2,000 to 3,500 inhabitants. The towns have numerous quartz mills thundering away night and day, besides several smelting furnaces. There are many good public buildings, schools, churches and hotels. The principal hotels are the Mountain House, Black Hawk; St. Nicholas and Connor House, Central City. The principal newspapers are the *Central City Register*, daily and weekly, and the *Black Hawk Journal*, daily and weekly.

The principal business of the place consists in mining—this being claimed as the chief gold-mining town in Colorado. It was the first mining camp established. W. N. Byers, of the *Denver News*, pitched his tent here in 1859. An immense number of rich quartz veins crop out in every direction, and with successful milling these veins or lodes must yield an enormous revenue. As yet the country is hardly prospected, owing to the fact that mill facilities are not such as to encourage it. The great want of Colorado is a de-sulphurizing process, by which the refractory ores can be worked, and the metal obtained from the rock without the great waste which has accompanied the usual method of working heretofore.

IDAHO CITY—Is situated in Clear Creek county, on South Clear Creek, about 20 miles west of Golden, and will be reached by the Colorado Central Railroad, which is being constructed up the creek to Georgetown, when that road is completed. At present it is connected by stage lines via Black Hawk and Virginia Cañon, and from Floyd Hill.

The town contains about 500 inhabitants. It is celebrated for its hot and cold mineral springs, which are in the heart of the city. A hotel and bath-house are connected with the springs, which are becoming a noted summer resort. There are three others in the town, which, with the former named, afford ample accommodations for the traveler. The waters are highly recommended for various diseases, especially chronic cases of long standing.

GEORGETOWN is 13 miles west of Idaho, in the same



FINGER, OR NEEDLE ROCK. WEBER CANYON. (See page 80.)

county, and on the same creek, and will be reached by the same railroad line when completed; it is now reached by the same line of stages as Idaho City.

Gorgetown is situated in the centre of the famous silver mines of Colorado, at the base of the Snowy Range, 8,452 feet above the level of the sea.

The city contains about 2,000 inhabitants, and is well supplied with hotels, churches, schools, and newspapers; of the latter, the *Miner*, is a *live* weekly; and the *Evrier*, a monthly; both of which are devoted to mining matters, and home interests, generally. Altitude of the city, 8,452 feet. Grey's Peak, just above the town, is 5,799 feet higher than the town.

The silver mines around this place are simply wonderful in their number, magnitude, and richness. But some other than the ordinary mill process, or yet the furnace process now in use, must be discovered, before many of the lodes can be worked to advantage, on account of the refractory character of much of the ore. Not but what the mines pay with the present process, but still not more than half, and often not more than a third or fourth of the silver contained in the rock is saved, which entails a severe loss on the miner. Large amounts of ore are being shipped from these mines to England for smelting, and several smelting furnaces have been erected since we last wrote about this section.

Returning again to Golden, we proceed by rail, along the base of the mountains a distance of twenty miles north, to

BOULDER—county seat of Boulder County. This city is situated close to the mountains, at the mouth of Boulder Cañon, down which courses Boulder River, a large stream fed by melting snows and perennial springs, which affords the citizens a never failing supply of the purest water, for city, manufacturing, and irrigating purposes. The scenery along up Boulder Cañon is very grand, beautiful, and sublime. The lofty walls rise in places from 1,000 to 2,000 feet above the river, or wagon

road, which runs through this mammoth gorge. (See illustration, page 49.)

Boulder county is one of the richest in the Territory, both in agricultural and mineral productions. The eastern half of the county is occupied by thrifty ranchmen, and contains some of the oldest and best cultivated farms, and the best and most extensive coal mines in Colorado, while in the western or mountainous portion of the county are located the Gold Hill, Sugar Loaf, Caribon, Pennsylvania, Snowy Range, Gold Lake, Ward, Jamestown and other rich mining districts, containing numerous stamp mills and reduction works, which yield a wealth of the precious metals daily.

We would like to give a description of many other thriving towns in the Territory, but our space will not admit of it at present. We will now take hasty glances at the general features of

COLORADO TERRITORY.

It is not our purpose to enter into a very minute description of this remarkable country. Volumes would not suffice to do justice to the Territory; her vast resources; her mines of gold, silver, iron, coal, and copper; her rich and fertile valleys; her broad plains, on which roam thousands of cattle, sheep, and horses; her vast agricultural resources; her dense forests and lofty mountains; her genial climate and whole-souled people, cannot be described in one small volume with any degree of accuracy or justice; in fact, they cannot be described at all, they must be seen to be appreciated, and the reader of any work treating on Colorado must live among her hardy, hospitable people before a correct understanding of their real character can be obtained.

Colorado once, by bill passed by Congress—became a State, had President Johnson ratified the act.

The territory contains about 110,000 square miles, and, according to the census of 1870, 39,864 population; now probably about 60,000.

The climate is dry and very healthy, the Territory being unsurpassed in this respect. Diseases common in the older States are unknown here. Pulmonary complaints are either eradicated from the system of invalids who resort to this country, or the disease becomes so modified that the sufferer enjoys a marked improvement in his condition. Within the past two years Colorado has become noted as a resort for invalids; and we hear of some remarkable cures, resulting wholly from a change of climate.

The report of the Agricultural Society of Colorado shows that stock-raising is carried on to a great extent, and with very flattering results.

Oats, barley and corn give handsome returns. Wheat is said to yield from 40 to 50 bushels to the acre.

No State in the Union, California excepted, can excel Colorado in the production of vegetables. In some portions of the Territory, owing to the dryness of the black loam, irrigation is necessary to secure good crops, for which purpose canals and ditches have been dug from the neighboring streams, which afford all the water required, and also ample water-power for mills of various kinds.

Colorado is rich in the precious metals, gold and silver being found in different parts of the Territory. "Pike's Peak" became famous in 1858-9, though it is said that gold was discovered in the Territory in 1849. The placer mines were never very extensive, at least those which have been discovered were not lasting ones. It appears that the chief wealth of the mines lies in the gold and silver bearing quartz lodes. In some localities the rock is very easily worked, but in others the ore is very refractory, requiring de-sulphurizing before much of the precious metal can be obtained by mill process. Several companies have tried the experiment of roasting the ores in furnaces of their own invention, the expense of which came from the miners' pockets. Most, if not all, these experiments have proved failures, the furnaces de-sulphurizing only a portion of the ore.

Along the base of the mountains, for many miles north and south of Denver, extensive coal mines have been discovered at various points. Good authorities estimate the extent of the coal fields at 5,000 square miles. To the north of the city several companies have opened mines, which are yielding, besides enough to supply home consumption and the various railroad companies, immense quantities for shipment to the North, East and South.

This coal is bituminous, and is harder, brighter, less dirty and odorous, burns with a purer flame, and leaves less residue than the coal from Illinois.

Large quantities of iron ore, of good quality, are found, in connection with the coal deposits, and will eventually constitute a great source of wealth to the country. Manufacturers of machinery and all kinds of iron implements would find in Colorado an almost unlimited market, and would be able, while underselling eastern dealers, to reap a rich reward for their outlay.

The following are among the minerals and precious stones found in Colorado: Moss agates, chiefly in Middle Park; amethyst, at Nevada, Mill City, and on Soda Creek; chalcedony, in South Park; feldspar, near Idaho and on Elk Creek; garnet, in South Park and about Breckenridge; jasper, in South and Middle Parks; mica, near Georgetown and Genesee Ranch; opal, near Idaho and in South Park; onyx, near Willow Creek, in Middle Park; quartz crystals, at many points; satin spar, near Mount Vernon; silicified wood, in Middle and South Parks, on Cherry Creek, the Platte, and Kiowa.

The grandest mountains in North America are found

in this Territory. They raise their snow-clad peaks far above their compeers, rising proudly and defiantly into the clear blue sky; their gray sides and white crests being visible through this clear atmosphere for many, many miles.

In the pure air of this country objects like these are visible for a great distance, so great indeed, that were it named, those who have never been in these regions, we fear, would doubt the statement.

The altitude of the principal mountains, according to Prof. Whitney, are: Mt. Lincoln, 16,190 feet; Pike's Peak, 14,336 feet; Gray's Peak, 14,251 feet; Sopri's Peak, 14,200 feet; Mt. Cameron, 14,000 feet; Mt. Guizot, 13,223 feet; Vealie's Peak, 13,456 feet; Parry's Peak, 13,214; Argentine Pass, 13,000 feet; Laguna Alta, 12,000 feet; Mt. Flora, 12,878 feet; Snowy Range, 11,700 feet; Boulder Pass, 11,700 feet; Georgia Pass, 11,487 feet; Berthoud's Pass, 11,371 feet; Note Pass, 11,200 feet. There are other peaks, less high, but none the less grand and majestic. The Alps, storied monuments of poetical, legendary fame, cannot compare with these mountains in scenes of sublime beauty and awful grandeur. Here, all of the vast scene is before you, the pure air bringing the distant mountains within your vision, as though anxious that the whole grand beauty of the scene should be visible at one and the same time. The mind drinks in the inspiration of the glorious vision at one draught, and filled with awe, wonder and admiration, the bounding heart almost stands still, while the eager eyes gaze on the grandest panorama in nature. From the top of Grey's Peaks, either of them, a morning scene of glorious beauty is unfolded to the visitor, such as one rarely sees in any clime, for nature, in her wildest moods, has never excelled her handiwork in the panoramic view spread out in every direction. European travelers tell us that nowhere within the range of European travel can such scenes be found—scenes so full of beauty, sublimity and inspiration.

Nowhere on the old continent do we ascend so high; from no point is the view so wide and comprehensive. From Alpine summits, the tourist's gaze extends over one petty province to rest upon another. Here, the eye fails to reach the extent of even one portion of our country, and the far distant horizon closes in the scene, by dropping an airy curtain, whose fleecy fringes rest on mountain peaks and vast plains, in far distant portions of the same fair land.

THE SUMMIT OF THE ROCKY MOUNTAINS, from one side of which the waters of numerous little springs ripple softly away, as though afraid to venture on the vast distance which lies between them and the waters of the Atlantic Ocean, their final destination. On the other side of the crest the scene is repeated, with this difference, that the waters stealing away through beds of tiny, delicately tinted, mountain flowers, are destined to reach the Pacific Ocean, on the other side of the continent. So close together in their infancy, so far apart in their prime, or at their final grave—the ocean. This point is the apex, the centre of the North American Continent, the crowning peak of that great backbone, whose iron ribs are represented by the many spurs that branch away in earnest support of the whole grand system.

From this point, range on range, gorge after gorge, can be seen, interspersed with rugged peaks, which lend a peculiar wildness to the scene. Away to the east, lies the vast, grayish expanse of the plains, looking like some great ocean, its breast unstirred by the passing breeze, or rippled by a single prow. Nearer, still, among the bordering mountains nestling in the hollows and between the brown heights, lie miniature prairies,

patches of green, on which the rays of the morning sun fall in folds of yellow light, enveloping them in a flood of golden beauty. Small and insignificant as they appear when compared with the vast sea of plains beyond, they are really large valleys, in which are found the farming lands of Colorado.

These little valleys, as seen from the mountain tops, prove, on entering them, to be both wide and long. They consist of the NORTH, MIDDLE, SOUTH and SAN LUIS PARKS, which lie along, on either side of the line of Central Colorado. Each is a great central park or valley in itself, shut out from its neighbor by dividing ranges of rugged hills, the only entrances being along the numerous water courses, which have their origin in the valleys, and cut their way through the surrounding mountains in their passage to sea. The extent of these parks vary, the largest being about 80 miles long, with an average width of 40 miles. The smallest of the number will not exceed 40 miles in length, with a width of about 15 miles. Some of these lie on the Atlantic side of the "back-bone," while others rest on the Pacific side, their altitude being from 7,000 to 10,000 feet. They are, in fact, great upland basins, the reservoirs of the debris which for centuries have washed down the mountain sides. Their soil is fertile, yielding wild grasses in abundance, furnishing food for vast herds of sheep and cattle.

In Europe or New England, were such plains found at such an altitude and in similar latitude, they would be worthless, barren wastes—probable regions of perpetual ice and snow; but here, grains and vegetables are successfully cultivated, and cattle graze the year round at the height of 7,000 feet, while those valleys which lie between this altitude and that of the highest—10,000 feet—and including those, also afford excellent summer pasturage and great crops of natural grass, which is cured for hay and exported.

These great fertile areas constitute one of the great resources of the Territory—an unbounded field of wealth which requires no expensive machinery to develop. When these plains shall have been stocked and settled, when the golden grain shall wave in the morning breeze around the home of the pioneer, when these lands shall have been divided up and peopled, a new era of wealth and prosperity will dawn on Colorado—an era of steadily increasing and permanent progress, such as mines can never give.

With this sketch of Colorado, short and imperfect, because it is impossible to do justice to this country, we take our leave of it, and

Returning to Cheyenne, we start once more for the West. We shall soon be rising up among the Black Hills, which are stretching far away in a long, rugged line before us. Soon we cross Crow Creek, on a Howe truss bridge, one of the best on the line. We leave the creek and follow up the bed of a small, dry ravine. Now we have a fine view of Fort Davy Russell, of which we have spoken.

HAZARD—Six miles west of Cheyenne, is the first station. Here, the traveler going East, can obtain a fine view of Cheyenne and Fort Davy Russell, which lie directly ahead of his train. Elevation, 6,325 feet.

OTTO—Is eight miles further west, but our train does not stop. We are now 6,724 feet above the sea, and the traveler should note the rapid rise made from his point, in surmounting the Black Hills. Here the easy grading commences.

To the north of this place, at the base of the hills, is a fine valley, where Crow Creek finds its source in many fine springs. The valley contains very superior grazing

land, and in conjunction with the adjacent hills, affords ample game for the hunter.

Fifteen miles from this station, to the north, at the eastern entrance of Cheyenne Pass, is the site of old Fort Wallbach, now deserted. Near this fort are the head waters of Lodge Pole Creek.

GRANITE CANON—Is five miles west of Otto, and 574 feet higher. At this point are extensive stone quarries, whence was taken the rock for the company's buildings in Cheyenne, also for the stone warehouses. Limestone abounds in this vicinity, and many kilns have been erected. To the left of the road, and down the cañon a few hundred yards, is a fine spring, from whence the water is elevated to the tank by the roadside. Half a mile to the south are the head-waters of Lone Tree creek, a tributary of the South Platte river. Along the road now is heavy rock-work, and on the exposed portions of the road may be seen the snow-sheds and snow-fences, built of plank or stone.

BUFORD—Is a small side-track, seven miles further. Heavy rock-work, and snow-sheds and fences mark the road.

The country here presents a wild, rugged and grand appearance. The level ground or little valleys are covered with a fine coat of grass, and now and then clumps of stunted pine appear by the roadside. On either hand, near by, high, bold masses of granite rear their gray sides, piled one on the other in wild confusion. The scene is peculiarly impressive as we near Sherman, especially if it chance to be one of those days when the clouds float low down the horizon; then the traveler looks over the intervening space between him and the mountain range beyond, and sees naught but floating masses of vapor; no mountains, no valley, no forest, only these fleecy shapes, and a long, dark line rising above them, o'ertopped by the glistening sides of Long's Peak. The altitude gained, we seem to move along a level plain, covered with grass, rocks and shrubs, until we reach

SHERMAN—Eight thousand two hundred and forty-two feet above the level of the sea. It is named in honor of General Sherman, the tallest general in



Burning Rock Cut, near Green River.

the service. This station is 549 miles from Omaha and 1,365 from San Francisco.

Seventy miles to the south-west is Long's Peak, and 165 miles to the south, is Pike's Peak, both plainly visible. To the north-west, about 100 miles distant, is Elk Mountain, another noted land-mark. The maximum grade from Cheyenne to Sherman is 88.176 per mile.

At this point the company has a stone round-house of five stalls, and repair shops. The trains stop here but a few minutes. It is merely a telegraph and freight station. About 25 houses of logs and boards constitute the town. One store, two hotels and two saloons make up the business portion. The freight taken on at this station for the East and West is very extensive, consisting of sawed lumber, telegraph poles, and wood obtained in the hills and ravines but a few miles distant.

Fine springs of water abound in almost every ravine. This is a noted point for game, black and cinnamon bears being found in the hills to the northward, and occasionally "mountain lions."

These hills are covered in sections with a dense growth of hard spruce pine, which, as to quality and adaptability for being dressed, resembles the hemlock of the Eastern States.

At this elevated point, the tourist, if his "wind is good," can spend a long time pleasantly in wandering amid some of the wildest, grandest scenes to be found on the continent. There are places where the rocks rise higher, where the chasms are far deeper, where the surrounding peaks may be loftier, and the torrents mightier in their power, and still they do not possess such power over the mind of man as does the wild, desolate looking landscape around Sherman. Although the plateau is covered with grass, and occasional shrubs and stunted trees greet the eye, the surrounding bleakness and desolation render this place one of awful grandeur. The hand of Him who rules the universe is nowhere else more marked, and in no place which we have ever visited have we felt so utterly alone, so completely isolated from mankind, and left entirely with nature, as at Sherman, on the Black Hills of Wyoming.

At first the tourist experiences much difficulty in breathing, the extreme lightness of the air trying the lungs to their utmost capacity, but becoming accustomed to the change, and inhaling long draughts of the pure mountain air, will greatly prefer it to a heavier atmosphere.

The winters are not as severe at Sherman as many think, neither does the snow fall as deep as many would suppose from seeing the great number of snow-sheds and fences; snow seldom falls more than a few inches in depth. It is not the depth of snow that causes any inconvenience to the working of the road, but it is the drifting of it into the cuts during the heavy winds. For the purpose of preventing this, the sheds, fences and walls are erected along the road, the latter a few rods away from the banks of the cuts. The fences cause an eddy or current of air, which piles the snow along in huge drifts, keeping it, in a great measure, from the track. Snow-sheds cover the deepest cuts along the road, where obstructions from the snow are most likely to occur. The cold rains and deepest snows come with an east wind; the worst storms from the south-west.

The thermometer at Sherman ranges from 82 deg. Fahrenheit, in the summer, to 30 deg. below zero in winter. Springs of sparkling water are numerous in the surrounding country, and form many small streams which wind their way among rocks and through gorges until they are lost in the waters of other streams.

Dale Creek heads six miles to the north, and empties in the Cache-a-La Poudre river. The latter stream rises about 35 miles south-west from Sherman and empties into the south Platte.

FISH AND GAME. There is no spot along the line of road which can be compared to the locality around Sherman for trout fishing. The tiniest rivulets swarm with them, and their speckled sides glisten in every eddy. They weigh from one fourth to two pounds, and their flesh is as hard and white as that of the mountain trout of Vermont.

Antelope, elk, black-tailed deer, bear, sage hens and grouse abound in the hills and on the plateaus. The angler, hunter or tourist should never pass Sherman without pausing long enough to fly a hook and try his rifle. Doubtless this point will become a favorite summer resort for travelers, when the hotel accommodations are such as to entice them to remain, as it possesses eminent attractions for hunting and fishing.

From Sherman to Rawlins, 160 miles, the road runs between the Black Hills and the Rocky Mountain range, presenting varied and impressive scenery at various points.

Leaving Sherman, the road turns to the left, and three miles further on we reach

DALE CREEK BRIDGE

a plated framework structure, 650 feet long and 126 feet high, spanning Dale Creek, from bluff to bluff. The bridge as it stands on trestles, interlaced with each other, and securely corded together, presents a light, airy and graceful appearance when viewed from the creek below. [See illustration page 45.] From the bridge, the beautiful little stream looks like a silver thread below us, the sun glistening its surface with a thousand flashes of silvery light. Anon, the dark walls of the cañon shade it, as though they were envious or jealous of its beauty being rendered common property. A narrow green valley, half a mile above the bridge, is the site of the former Dale City, where, at one time, were over 600 inhabitants. Now, a few hundreds yards above the bridge, can be seen a solitary house—like a lone sentinel in front of a deserted camp. Here, too, as well as around Sherman, and all over the Black Hills, are found countless flowers of every variety and hue, over 300 varieties of which have been classified.

VIRGINIA DALE is situated fifteen miles south-west of Sherman, in Colorado. Some "yellow covered novelist" has immortalized it, by calling it the "Robber's Roost," though failing to inform us what they roosted on. But aside from this questionable honor, Virginia Dale is the most widely known and celebrated of any locality in these mountains. There are a few good buildings around the place, where excursionists, who visit to enjoy the scenery, mountain air, and rare fishing and hunting, are provided for.

The place was originally a stage station on the old Denver Salt Lake and California road, and was laid out and kept by the notorious Jack Slade, who was division superintendent for the old C. O. C. Stage Co. from 1860 to 1863. It was supposed that Slade was the head of a gang of desperadoes who infested the country, running off stock from emigrants, and appropriating the same. At any rate, he was a noted desperado, having, it is said, killed thirteen men. The last of his exploits, east of the mountains, was the wanton and cruel murder of Jules Burg, the person who gave his name to Julesburg. Slade had a quarrel with Jules in 1861, which ended in a shooting scrape, wherein Slade was beaten—or, as their class would say, "forced to take water." In 1863 some of the drivers on the line, friends and employees of Slade's, decoyed



THE MORMON TABERNACLE, SALT LAKE CITY.

Jules to the Cold Spring ranch, on the North Platte river, kept at the time by old Antoine Runnels, commonly known as "the Devil's left bower." He was a great friend of Shale's, who appears to have rightfully earned the title of "right bower" to that same warm-catured individual. The place where this tragedy occurred is 50 miles north of Cheyenne, and 25 miles below Fort Laramie, whither Shale repaired from Cottonwood Springs (opposite McPherson station) in an extra coach as soon as he was notified of the capture of his old enemy. He drove night and day, arriving at Cold Spring ranch early in the morning. On alighting from the coach, he found Jules tied to a post in the yard, in such a position as to render him perfectly helpless. Shale shot him twenty-three times, taking care not to kill him, cursing all the time in a most fearful manner, returning to the ranch for a "drink" before a shot. While firing the first twenty-two shots he would tell Jules just where he was going to hit him, adding that he did not intend to kill him immediately; that he intended to torture him to death. During this brutal scene, seven of Shale's friends stood by and witnessed the proceedings. Unable to provoke a cry of pain or a sign of fear from the unfortunate Jules, he thrust the pistol into his mouth, and at the twenty-third shot blew his head to pieces. Shale then cut the ears from his victim, and put them in his pocket.

In the saloons of Denver City, and other places, he would take Jules' ears out of his pocket, throw them down on the bar, and openly boasting of the act, would demand the drinks on his bloody pledges, which were never refused him. Shortly after this exploit, it became too hot for him in Colorado, and he was forced to leave. From thence he went to Virginia City, Montana, where he continued to prey upon society. The people in that country had no love or use for his kind of

people, and after his conduct had become unsupportable, the Vigilantes hung him, as he richly deserved.

His wife arrived at the scene of execution just in time to behold his dead body. She had ridden on horseback 15 miles for the avowed purpose of shooting Shale, to save the disgrace of having him hung, and she arrived on the scene, with revolver in hand, only a few minutes too late to execute her scheme.—Jack Shale, the desperado was dead,—and he died "with his boots on."

Virginia Dale is situated at the head of a deep gorge, on Dale creek, near the Cache-la-Poudre river. On the east side of the cañon, the wall of overhanging rock rises about 600 feet high, for a mile along the stream, giving a wild and picturesque beauty, a sublimity and grandeur to the scene, rarely surpassed. This point is called the "Lover's Leap," though we never learned that any one ever leaped off; but if the leap was made, we judge that the jar on alighting in the valley, 600 feet below, must have knocked all love, romance, or sentiment out of those making it. In and around the place are numerous dells, grottoes, gorges, cañons, precipices, towering peaks and rugged recesses, enough to employ the tourist for some time in examining their beauties.

At this point the valley of the Cache-la-Poudre, a tributary of the South Platte river, may be said to begin, and from here on, down the river for fifty miles, stretches one of the loveliest valleys in the Territory. It is thickly settled, and the settlers raise abundant crops.

While passing down the valley, we come to La Porte City, which contains about 100 inhabitants. It is situated near the mountains, in the midst of a fine country, well cultivated, and near the river. It contains a hotel, stores, post office, and several fine buildings.

Time, that power which works such wonders, will, at no distant day, show homes as lovely and attractive as those to be found in the valleys of the old States, and the orchard, vineyard, and fields of waving grain will invite the traveler to pause and note the real wealth and matchless beauties of the country. There is room and good land enough among these mountains to provide homes for thousands of the toiling, homeless sons of the old States. Will they come and avail themselves of nature's bounty, and build themselves homes where, at length, they will find life worth living for, or will they toil among the stumps and rocks of the East, to eke out a scanty subsistence? "*Quien sabe?*"

We now return to the railroad once more, and take up our record of the route.

HARNEY—Is five miles west of Dale creek. Steam is not required now, only brakes, as the grade of the road, for fifteen miles, averages a little over 47½ feet to the mile. We are descending into Laramie plains, and shall direct our course more to the northward. Between Harney and the next station can be seen the old Denver and Salt Lake stage road, the telegraph marking the line for some distance along the railroad to the left.

RED BUTTES—Is situated on the plain, six miles from Harney. It derived its name from several ridges and peculiar formations of sand stone lying between the railroad and the Black Hills on the right.

Many of these sand-stones rear their peaks from 500 to 1,000 feet above the plain, apparently worn and washed by the elements, into wild fantastic shapes and grotesque figures. Rocks which, at a distance, might be taken for castles, rise side by side with the wall of an immense fort; churches rear their roofs, almost shading the lowly cottage by their side; columns, monuments and pyramids are mixed up with themselves and each other, as though some malignant power had carried off some mighty city of the olden time, and, wearying of his booty, had thrown it down upon these plains without much regard to the order in which the buildings were placed.

Some few only of these curiosities, can be seen from the car windows, and those are not the largest. The tourist, by stopping over a day or two at Laramie, would find much of interest in this section of the country.

LARAMIE RIVER rises about 50 miles to the southwest from Red Buttes, on the eastern slope of the Medicine Bow Mountains, its source being composed of almost innumerable springs. Its general course is north-east for 200 miles, when it empties into the North Platte River at Fort Laramie.

During the building of the road, thousands of ties were floated down to Laramie, and thence hauled along the line. The supply of lumber in this region is as near inexhaustible as can well be imagined, where forests do not recover from the cutting. There will be no second growth of the timber here; when once cut off, it is gone for ever. Saw-mills will find employment for many generations, ere they can lay bare these mountains.

FORT SANDERS—Six miles from Red Buttes, is a railroad station, for the military post of

FORT SANDERS, situated on the east side of the railroad, close to the track, and in plain view for miles in every direction.

This post was established June 23d, 1866, by two companies of the Third Battalion, U. S. Infantry, under command of Brevet Lieutenant-Colonel H. M. Mizner, Captain 18th Infantry. Latitude 41 deg. 13 min. 4 sec. (observation), longitude 105 deg. 40 min. (approximate.) Three miles farther on, we come to

LARAMIE CITY—The county seat of Albany County. Population about 1,000. This is a regular eating station, where good meals are served in the Railroad Company's fine large hotel, in front of which the cars from the east stop 30 minutes for supper, and those from the west the same time for breakfast. Elevation of Laramie, 7,122 feet.

Laramie City is regularly laid out, at right angles with the road. A stream of clear, cold water, which rises in a spring a few miles to the eastward, runs through the principal streets; the buildings are small and mostly of wood with a few substantial structures of stone. The spirit of improvement is manifested, however, which has recently completed numerous stores, hotels, churches, schools, dwellings, and other buildings, including a court-house and jail. The *Sentinel* and the *Independent*, both weekly newspapers, are published here.

ROLLING MILL.—During the year of 1874 the Railroad Company erected a Rolling mill at this place at a cost of \$127,500.

The company's division shops are also located here. They are of stone obtained from Rock Creek, 50 miles distant to the northward. The round-house contains 20 stalls. The machine shop is used for general repairing, and contains all the necessary machinery of a first-class shop. The railroad was completed to this point on June, 18, 1868. Directly to the east of this place can be seen the Cheyenne Pass wagon road—the old emigrant route—which crosses the plain and river half a mile below the city, running northwest to the base of the mountains, parallel with the railroad.

WOMAN JURY.—Laramie was the first place in America—or in the world even—where a female jury was empaneled. Their first case was that of a western desperado, and there was no flinching from duty on the part of the "weaker sex." Before bringing in their verdict, they invoked the divine guidance—while their nurses calmed the rising generation by singing.

"Nice little baby, don't get in a fury,
'Cause mamma's gone to sit on the jury."

"TRICKS THAT ARE VAIN."—Curious passengers will note from this city west the railroad laborers—section hands—are all CHINAMEN; they are said to be very reliable; and, as they don't drink whiskey, the saloons along the line are getting almost as scarce as the grasshoppers and mice. The saloon-men are all "anti-Chinese."

LARAMIE PLAINS is a belt of fine grazing land, about 20 miles wide by 60 long, and is considered one of the best stock-raising sections in this section of the country.

The remarks about the grazing lands made elsewhere will well apply to this section. Beef can be raised and fattened on these plains at an expense not exceeding the cost of such cattle in Texas, where, as every one knows, they raise themselves and form the largest half of the population. The peculiar features of these grasses are similar to those already described. The plains are higher, and frost makes its appearance earlier in the fall, but the grass is cured by the summer sun before its arrival, so that the cold weather does not injure it. We need only to mention the well-known fact, that thousands of buffalo roamed over these plains, furnishing the Indians with unlimited quantities of beef, before the white man drove them away, to convince any one that the laudations of this, as a grazing country, are not exaggerated or wild ideas of enthusiasts, but simple facts, substantiated by past and present experience. Agriculture is not profitable, yet they have demonstrated that some of the hardy vegetables can be cultivated with success on the bottom-lands.

Stock-raising is now almost the only industry noticeable, and a great many thousand head of cattle, sheep, and horses can be seen in almost any direction. It is reputed that there are at this time over 50,000 head of domestic animals on these plains, which are increasing rapidly.

ITEMS OF INTEREST. Crystal Lake is about 40 miles to the westward of Laramie. Sheep Mountain—one of the peaks in the Rocky Mountain range—rears its head for 12,000 feet above the sea. Should the tourist desire to visit the place, he will find the road beyond the plains rough, and the ascent toilsome. Before beginning the ascent of the mountains we enter one of the grandest forests in the country. For ten miles we toil on through the forest, which is so dense that the sunlight hardly penetrates, and the silence is almost oppressive. Bear, mountain lions, and the mountain sheep range here; their haunts, until lately, never having been invaded by the pale face. Emerging from this gloom into the fair sunlight, we find ourselves on the highest point of the mountain, from which we can look over piles of fleecy clouds floating below us to other ranges far beyond. Peak on peak, ridge on ridge, they ascend, until their snow-clad heights are lost in the distance, or in the vast blue dome above. Looking down, we behold a vast succession of dark ridges and gray peaks through the rifts in the fog-like vapor floating above them. These dark ridges derive their sombre hue from the forests of pine, which extend for miles and miles in all directions. To the east we see a deep indentation in the mountains, which is Laramie Plains. Across this apparently narrow line, the rugged masses of the Black Hills rise in their grandeur, their black crests closing the scene.

Turn now to the immediate landscape. Here is a green, grassy lawn, dotted with tiny flowers, of varieties such as we never before beheld, or ever read of, and right before us, in the centre of this lawn, lies a circular lake nearly a mile wide, its clear, soft, cold water glistening in the rays of the sun, and reflecting, as in a mirror, every object on its banks, transforming them into many fantastic shapes, as the breeze lovingly kisses the silver surface, lifting it into little ripples.

The scene is one of unsurpassed loveliness immediately around you; while the view in the distance is grand, awe, sublime—beyond the power of words to depict. Whoever visits this place cannot fail of being impressed with its wondrous beauty, and his mind will take newer and clearer impressions of the power of "Him who hath created all things."

THE SNOWY RANGE.—The great backbone of the continent, is covered with snow for a great part of the season; the highest peaks ever wearing their white robes, even when the passes are covered with snow. This renders them very conspicuous and easily discerned at a great distance. Hence the term "Snowy Range."

CHARACTERISTICS OF THE COUNTRY. In general descriptions we speak of Laramie plains as including all the country lying between the western base of the Black Hills and the eastern base of the Rocky Mountains—a grand park, similar in formation to the great state of Colorado, though of much less altitude. These "parks" are immense bodies of Table lands, enclosed by the peaks and ridges of the surrounding mountains, sheltered by them from the cold winds, watered by them from the never-failing streams which flow from gorges and cañons among these peaks, from which the snow is never absent. The average elevation

of the Laramie plains or park is about 6,500 feet, though where Laramie city stands it is more. The Black Hill ranges of the Rocky Mountains form the eastern



Mormon Temple, Salt Lake City.

and northern boundary of the "Plains." This range extends nearly due north to Laramie Peak, about 150 miles, thence west, terminating in the Seminole Mountains. On the south, the park or plain is bordered by the Rocky Mountains, which here reach an elevation of from 10,000 to 13,000 feet above the sea, snow-capped always. To the altitude of from 8,000 to 9,000 feet, these slopes are covered with dense pine forests.

In these mountain ranges, mines of gold, silver, copper, iron, and coal have been discovered, and, in several cases, worked to advantage, while a vast region, doubtless equally well stored with mineral deposits, has never been prospected or visited by the white man.

On the north-west, from out the Elk mountains, juts the Battlesnake range, extending north to the North Platte, carrying an elevation of nearly 8,000 feet.

Through the western range, the North Platte Cañons, and, on the east, the Medicine Bow River cuts through the eastern range, separating it from the foot-hills of the northerly range of the Black Hills. Through the plains run the Big and Little Laramie Rivers, which, as we before stated, rise in the mountains which border the western rim of the plains. These streams cañon through the Black Hills north of Laramie Peak, and enter the North Platte near Fort Laramie.

Rock Creek rises east of Medicine Bow, and after flowing north to about latitude 42 deg., flows west and empties into Medicine Bow. This river rises in Medicine Bow Mountains, and flows north to about the same latitude as Rock Creek, thence west; and cañons through Battlesnake range of hills, entering the North Platte about 150 miles north-west of Laramie City, in latitude 42 deg. 3 min.

By this showing, it will be observed that the immense park, or Laramie plains, is well watered—sufficiently for grazing and irrigation. We have been more explicit, have dwelt longer on these points, than we should have done, did we not feel a desire to show to the emigrant, or to those who are seeking good locations for grazing lands, that the Laramie plains possess these advantages in an eminent degree. We have wandered far away from the plains in our descriptions, but the grazing lands end not with the plains. The mountain sides, until the timber belt is reached, the valleys, bluffs, and

foot-hills, all present the same feature in point of luxuriant crops of grass. The valleys of the streams mentioned also contain thousands of acres of meadow land, where hay can be cut in abundance, and, if the season will permit, wheat, barley and rye might be grown to advantage, the soil being a black loam, and sufficiently moist to insure good crops without irrigation.

With these general remarks, we will return to Laramie, and proceed on our journey. Soon after leaving the city we cross the Laramie River, and proceed eight miles to

HOWELL'S—An unimportant station, where passenger trains seldom stop.

WYOMING—On the Little Laramie River, is eight miles from Howell's. During the building of the road large quantities of ties were received at this point, which were cut at the head of the river and floated down the stream in high water. The country is a broad prairie. At the station we crossed Little Laramie, a small stream which rises in the mountains to the westward and empties into Laramie River. The same might be said of Whiskey Creek, a small stream which is crossed next.

COOPER LAKE—Is ten miles from Wyoming. Near the station, to the westward, lies a beautiful sheet of water, about two miles long by half a mile wide, called Cooper's Lake.

LOOKOUT—A station with an altitude of 7,169 feet; is eight miles from Cooper Lake. We are now entering the rolling prairie country, where, for 25 miles either way along the road, vast herds of elk, deer and antelope are found at different seasons of the year—the elk being mostly found in the winter, when the snow drives them from the mountains. We also begin to find occasional bunches of sage-brush, which tell us that we have entered the country where this more useful than ornamental shrub abounds. Occasionally we pass through cuts and over low fills, by snow-fences, and through snow-sheds, the country growing rougher as we pass along eight miles to

MISER STATION—Sage-brush is the rule. Just before reaching the station, we pass through a very deep cut—one of the deepest on the road—where a little spur of the bluffs rises abruptly from the plains, right in the way of the road. Just before reaching the next station, we cross Rock creek, famous for its trout fishing.

ROCK CREEK—Is a small station, situated on a small creek of the same name. Passing on, the train winds around the spurs of the bluffs, which seem to bar our way by interlocking with each other on through a rough rolling country, over bridges and fills, through cuts and snow-sheds, for eight miles to

WILCOX—An unimportant station, and continue crossing creeks and ravines for eight miles more, of difficult engineering and middling heavy road-work, and arrive at

COMO—Another unimportant little place. Soon after passing the station we come to Como Lake, a beautiful little sheet of water, lying to the right of the road. It is about one mile long and half a mile wide, and contains a peculiar fish, a "fish with legs." These *fish-animals* possess gills something like a cat fish, are amphibious, being often found crawling clumsily around on land, miles from the lake. Quite a variety of peculiar fossil shells are found around the lake that are gathered in summer by persons who offer them for sale to the tourists.

MEDICINE BOW RIVER is crossed a few miles leaving Como. It rises in the Medicine Bow mountains, as before stated, and empties its waters North Platte river.

This river was long a noted resort for Indians; several treaties have been made on its banks with the "noble red men" and their pale-faced "brothers." The valley of the river, above the railroad, for five miles or more, is broad, fine bottom-land, reaches the base of the mountain. From then on the source the course of the river is through forests of pine, which present unrivaled facilities for lumbering. Fish are found in great quantities in the stream, and the various kinds of game which abound in this country are found in the mountains where it has its source. Soon after crossing the river we reach a station called

MEDICINE BOW—Seven miles from leaving this station, the road is laid over a level plain for about five miles, when it enters hilly, sage-brush country, the train winding through deep cuts and long snow-sheds for five miles further, and stops at

CARBON—Here was discovered the first coal in the Union Pacific R. R. Two banks of coal have been opened, the veins averaging about nine feet thick. The working capacity of the veins is 200 tons per day. Coal is shipped eastward, much of it finding its way to Omaha, besides supplying the towns along the road. About 300 men are employed in the mines. The coal is raised from the mine and dumped into the flume standing on the track, the shaft of the mine being the main and side track. A stationary engine furnishes the hoisting power.

SIMPSON—A small unimportant side station, reached five miles from Carbon, after passing through a succession of cuts. Passenger cars do not stop here. The road now curves around, and runs almost due west for fifty miles.

PERCY—Is five miles further. The station is named for Colonel Percy, who was killed by the Indians when the survey of the road was being made. He was surprised by a party of warriors and retreated to a cabin, where for three days he withstood their killing several of his assailants. At the end of the time they managed to fire the cabin, and when it fell in the Colonel rushed out and was immediately killed. He was buried by the same Indians that the Government is now feeding at the "Red Cloud Agency," in the Medicine Bow River country.

During the construction of the road, this was an important station. Ties, telegraph poles, and bridge timber were landed at this point in great quantities. They were obtained at Elk Mountain, seven miles to the south. The old stage road ran around the base of the mountain, between the railroad and the river. Near the foot of the mountain, old Leek and one of the most important stations of the Overland Stage Company were located; both abandoned. The last remnant of those days is now found in the person of Mr. Foot, sutler of the fort, who still resides there, and at his ranch a pleasant resting place to the tourist.

ELK MOUNTAIN—is a noted landmark, and curiosity in its way. It rises to a great height, being covered with snow a great portion of the year, and at any time snow can be found in places on the summit. It has the appearance of being an isolated peak, though, really, it is the extreme northern end of the Medicine Bow Mountains. It is, how-

CR Trains.

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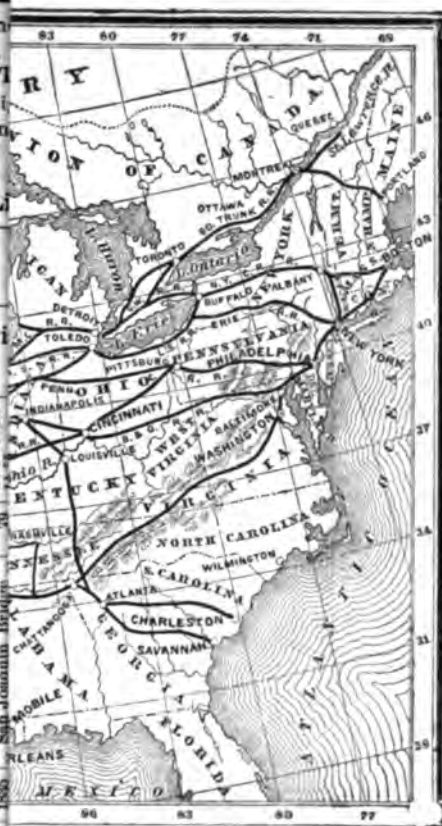
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11 25	49	1794	M'Connell's	130	1 50
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12 36	37	1817	Loeff	97	12 55
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12 40	25	1832	Stockton	82	12 05 P. M.
1 00	25	1852	Lathrop	79	12 55
1 30	36	1855	San Joaquin Bridge	79	12 55

For instance, it has not been published since the time of Wilkie Collins' *Woman in White*, or Mrs. Wood's *East Lynne*. Price \$1.75.

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A powerful and exciting new novel, by *Octave Feuillet*, author of "The Romance of a Poor Young Man," Etc. This volume also embraces the same author's other famous work, "The Sphinx." Price \$1.75.

TEN OLD MAIDS.

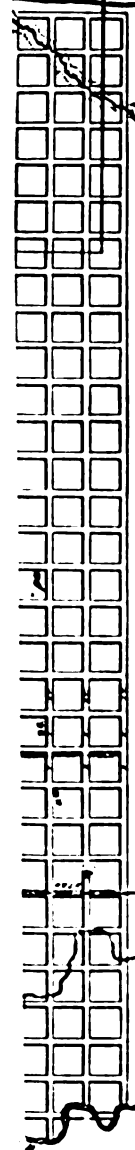
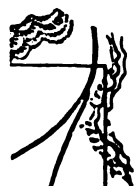


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STEAMBOAT ROCK, ECHO CANYON, UTAH.

foot-hills, all present the same feature in point of luxuriant crops of grass. The valleys of the streams mentioned also contain thousands of acres of meadow land, where hay can be cut in abundance, and, if the season will permit, wheat, barley and rye might be grown to advantage, the soil being a black loam, and sufficiently moist to insure good crops without irrigation.

With these general remarks, we will return to Laramie, and proceed on our journey. Soon after leaving the city we cross the Laramie River, and proceed eight miles to

HOWELL'S—An unimportant station, where passenger trains seldom stop.

WYOMING—On the Little Laramie River, is eight miles from Howell's. During the building of the road large quantities of ties were received at this point, which were cut at the head of the river and floated down the stream in high water. The country is a broad prairie. At the station we crossed Little Laramie, a small stream which rises in the mountains to the westward and empties into Laramie River. The same might be said of Whiskey Creek, a small stream which is crossed next.

COOPER LAKE—Is ten miles from Wyoming. Near the station, to the westward, lies a beautiful sheet of water, about two miles long by half a mile wide, called Cooper's Lake.

LOOKOUT—A station with an altitude of 7,169 feet; is eight miles from Cooper Lake. We are now entering the rolling prairie country, where, for 25 miles either way along the road, vast herds of elk, deer and antelope are found at different seasons of the year—the elk being mostly found in the winter, when the snow drives them from the mountains. We also begin to find occasional bunches of sage-brush, which tell us that we have entered the country where this more useful than ornamental shrub abounds. Occasionally we pass through cuts and over low fills, by snow-fences, and through snow-sheds, the country growing rougher as we pass along eight miles to

MISER STATION.—Sage-brush is the rule. Just before reaching the station, we pass through a very deep cut—one of the deepest on the road—where a little spur of the bluffs rises abruptly from the plains, right in the way of the road. Just before reaching the next station, we cross Rock creek, famous for its trout fishing.

ROCK CREEK—Is a small station, situated on a small creek of the same name. Passing on, the train winds around the spurs of the bluffs, which seem to bar our way by interlocking with each other on through a rough rolling country, over bridges and fills, through cuts and snow-sheds, for eight miles to

WILCOX—An unimportant station, and continue crossing creeks and ravines for eight miles more, of difficult engineering and middling heavy road-work, and arrive at

COMO—Another unimportant little place. Soon after passing the station we come to Como Lake, a beautiful little sheet of water, lying to the right of the road. It is about one mile long and half a mile wide, and contains a peculiar fish, a "fish with legs." These *fish-animals* possess gills something like a cat fish, are amphibious, being often found crawling clumsily around on land, miles from the lake. Quite a variety of peculiar fossil shells are found around the lake that are gathered in summer by persons who offer them for sale to the tourists.

MEDICINE BOW RIVER is crossed a few miles leaving Como. It rises in the Medicine Mountains, as before stated, and empties its waters into the North Platte river.

This river was long a noted resort for Indians. Several treaties have been made on its banks with the "noble red men" and their pale-faced allies. The valley of the river, above the railroad bridge, is broad, fine bottom-land, and reaches the base of the mountain. From this source the course of the river is through dense forests of pine, which present unrivaled scenery. Fish are found in great quantities in the stream, and the various kinds of game which this country are found in the mountains where it has its source. Soon after crossing the river at a station called

MEDICINE BOW—Seven miles from Wyoming. Leaving this station, the road is laid over level plain for about five miles, when it enters a hilly, sage-brush country, the train winds through deep cuts and long snow-sheds for further, and stops at

CARBON.—Here was discovered the first coal in the Union Pacific R. R. Two banks of coal have been opened, the veins averaging about nine feet. The working capacity of the veins is 200 tons per acre. Coal is shipped eastward, much of it finding its way to Omaha, besides supplying the towns along the road. About 300 men are employed in the mines. The coal is raised from the mine and dumped into the cars standing on the track, the shaft of the mine being the main and side track. A stationary engine is used for the hoisting power.

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CR₁ Trains.

vision,	Western Divi
pt.	

1953	Black Butte	121	10.80
795	Hallville	1116	10.19
1752	Rocklin	102	4.00
1751	Juniper	137	3.46
1767	Antelope	154	3.47
1767	Amie	147	3.20
1771	A. M. Briggs	140	3.69
1775	A. M. Briggs	139	3.40
1780	SACRAMENTO	134	3.23
1781	Beighton	130	2.74
1784	Elk Grove	120	2.14
1794	M. Connell's	120	1.3 ⁵
1802	Galt	119	1.50
1807	Acampo	107	1.30
1810	Loati	104	1.10
1817	Castle	97	12.58
1923	Stockton	91	12.40
1853	Lathrop	82	12.40
1885	San Joaquin Belders	79	12.65 P. M.

For intense interest, it has not been surpassed since the time of Wilkie Collins' "Woman in White," or Mrs. Wood's "East Lynne." Price 21/75.

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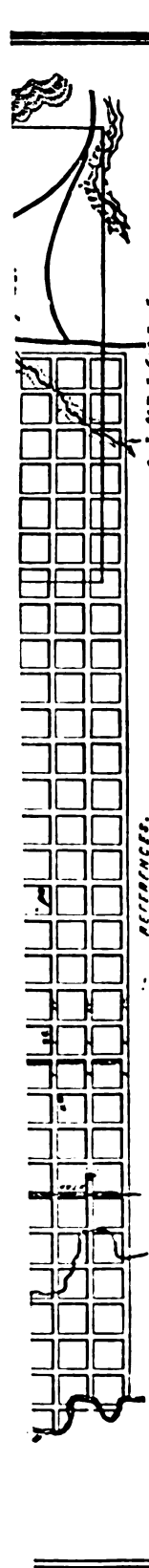
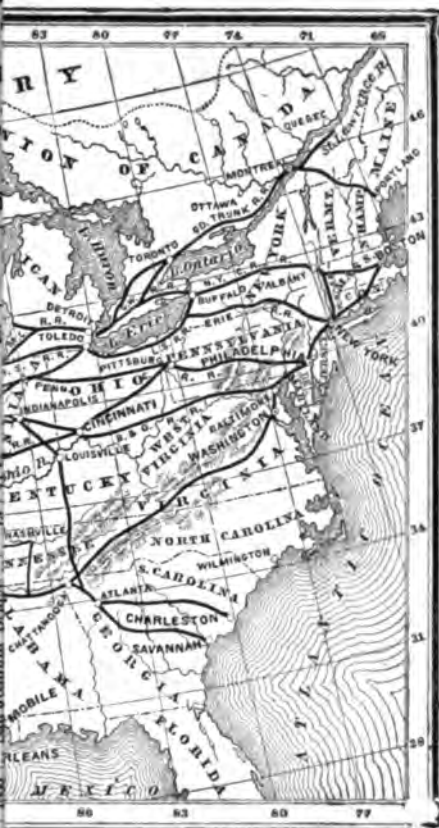
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Each Night	-	-	2 00
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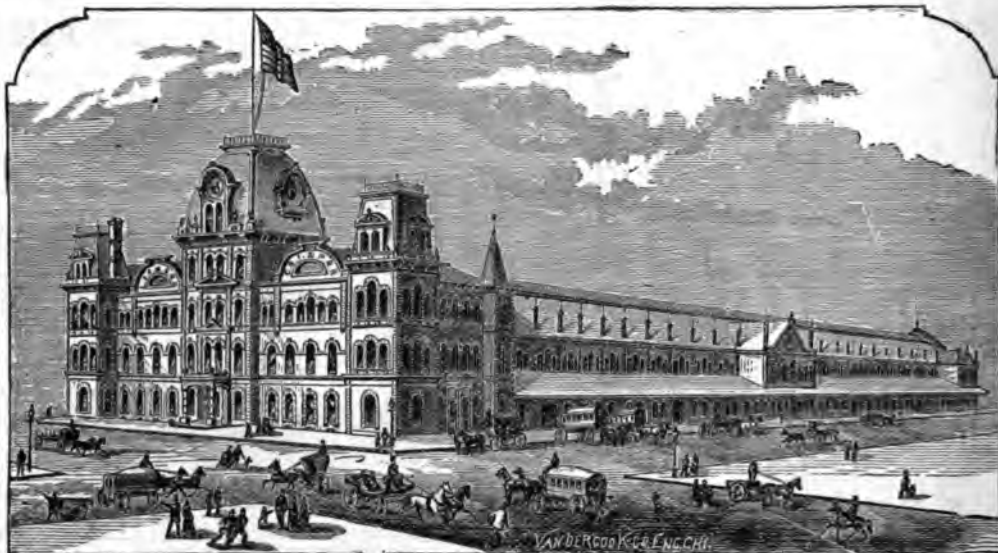
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STEAMBOAT BRIDGE, ECHO CANYON, UTAH.

rounded by rolling prairie land, and seems to rise boldly from it, rough, rugged and alone. On the west side, the summit is easily reached by a good road, made by the lumbermen. The mountain is nearly round, about six miles in diameter at its base. Its sides are covered with dense forests of pine, aspen and hemlock. It is worthy of note, that this is the only point where the latter species of timber is found along the line of the road. It grows in profusion with the spruce in the gorges, near the summit.

To the south is a fine valley, about 15 miles wide and 20 miles long. Pass creek, which rises in the Medicine Bow mountains, runs through this valley on its way to the North Platte river. Large quantities of hay are cut in the bottom-lands along the creek. This stream, like all others which rise in this range, is full of fine trout and other fish. Antelopes abound on the plain, while elk, deer, bear, mountain sheep and mountain lions find their homes in the dark ravines and gloomy gorges of the mountain.

DANA—Is an unimportant station passed, six miles west of Percy. From Percy to the North Platte river, 29 miles, the road is built down the valley of an alkali ravine. Sage-brush and stagnant pools of alkali water are the only objects that greet the eye—an unpleasant greeting, it must be confessed.

ST. MARY'S—Is six miles from Dana. Soon after leaving the station, our train enters the ravine, where the bluffs assume more formidable features; in fact becomes a gorge, the rugged spurs shooting out as though they would reach the opposite wall, and bar out farther progress. The first one of these spurs does indeed bar our way, or did until a tunnel was completed. Before this tunnel was finished, the company laid the road around the point of the spur on a temporary track. Emerging from the tunnel, the train rushes down the gorge, the wall now rising close, abrupt and high, on either hand, and eight miles from St. Mary's, we arrive at and pass

WALCOTT'S—An unimportant station. Down, down we go—the rough spurs point out from either wall of the cañon, an indenture in one bank marking a projection on the other. While looking on this scene, one cannot help fancying that one time this chasm was not, that some fearful convulsion of nature rent these mighty rocks in twain, leaving these ragged walls and fetid pools to attest the fact. Suddenly we whirl out of the mouth of this chasm—out on the level lands of the North Platte river—cross a substantial wooden bridge, and stop at

FORT FRED. STEELE—Eight miles west of Walcott's. Elevation, 6,840 feet.

This fort was established June 30th, 1868, by four companies of the 30th Infantry, under command of Brevet Cpl. R. I. Dodge, Major 30th Infantry. When the posts in the Powder river country were abandoned, the great bulk of the military stores were hauled to this place and stored for future use.

About two miles west of Fort Steele formerly stood

BENTON CITY—now entirely abandoned. The road was completed to this point the last of July, 1868. At that time a large amount of freight for Montana, Idaho, Utah, and the western country was re-shipped in wagons at this point, and during August and September the place presented a lively aspect, which continued until the road was finished to Bryan, the first of October. Benton at that time was composed of canvas tents. About 3,000 people of all kinds made the population; a harder set it would be impossible to find—roughs, thieves, petty gamblers (the same thing), fast women,

and the usual accompaniments of the railroad towns flourished here in profusion. There were high old times in Benton then, but as the road stretched away to the westward, the people "packed up their tents and stole noiselessly away," leaving only a few old chimneys and post-holes to mark the spot of the once flourishing town. Whiskey was the principal drink of the citizens, it being the most convenient, as all the water used had to be hauled from the Platte river, two miles distant, at an expense of one dollar per barrel, or ten cents per bucket-full.

At Benton, the bluffs which mark the entrance to the cañon of the Platte near Fort Steele, are plainly visible and will continue in sight until we near Rawlins. They are of gray sand stone, worn, marked by the waters or by the elements, far up their perpendicular sides. They are on the opposite side of the river, the banks on the west side being comparatively low.

At this point the river makes a bend, and for several miles we seem to be running down the river, parallel with it, though really drawing away from the stream.

To the south is a long, high ridge of gray granite, called the "Hog Back." It is about four miles away from the road, and runs parallel with it for about 15 miles, terminating in the highlands of Rawlins Springs. It is very narrow at the base, not exceeding half a mile in width, yet it rises from 1,000 to 3,000 feet high. The ridge is so sharp that cattle cannot be driven across it, and in many places it is all but impracticable for a man to attempt to walk along its summit. Where this ridge reaches the river bank, about two and a half miles above the bridge, the walls are perpendicular and very high, from 1,500 to 2,500 feet. A corresponding bluff on the opposite side shows that the river has cut a channel through this ridge, which at one time barred the progress of the waters.

On the south side of the ridge is a very pretty little valley, through which flows a small creek into the Platte. It furnishes fine grazing, and is in marked contrast to the surrounding country.

Many years ago this green and peaceful looking vale was the scene of a fearful battle between the Sioux and their inveterate enemies, the Utes. The Sioux were encamped in the valley, and were surprised by the Utes, who stole on them in the gray light of the morning, and attacked them furiously. Though taken by surprise, the Sioux fought bravely, but were surrounded and overpowered. When trying to escape, they essayed to cross the "Hog Back," but every one who raised his head above the crest was picked off instantly. A portion of the band escaped in another direction, leaving their dead comrades on the field. The Sioux were so badly whipped, that from that time forward they have had little use for the Utes.

NORTH PLATTE RIVER—We gave a short description of this river from where we first crossed it, near North Platte City, to Fort Steele, so we will now trace it from this station to its source.

From Fort Steele to the head waters of the Platte is about 150 to 200 miles. It rises in the mountains of the North Park, its waters being supplied by many tributaries, which, at present, are mostly nameless. The course of the river, from its source to this point, is nearly due north.

About twenty-five miles above the fort, is the Platte Ferry, on the old overland stage road.

Good bottom lands are found along the stream at intervals. About 100 miles further up, the tributaries of the river begin to empty their waters into the main stream, and the timber land commences.

Douglass Creek and French Creek are tributaries of the Platte, and run through heavy timbered valleys. Gold mines and gulch diggings were discovered here, but not prospected to any great extent. On the west side of the river, Monument and Big creeks empty their waters into the Platte, nearly opposite the creeks first named.

Big Creek rises in a beautiful lake, about three miles long by half a mile wide. A half mile above this lies another lake, but little smaller. This ground is disputed territory between the Sioux and Utes, rendering it very unsafe for small parties.

Eight miles from Douglass Creek coal is found in abundance, and farther on, fine-looking quartz veins crop out on the hill side. Near here are sulphur springs, seven in number, and very hot; while, along side of them rises a clear, sparkling spring of ice cold water, and we opine that the time is not far distant when these springs will be taken up, a narrow gauge railroad laid down, hotels built, and one of the finest "watering places" in the world opened to the public.

Fish, of many kinds, and beavers, are abundant in the streams; the beavers erecting dams often six feet high. The mountains and forests are full of game, and in them and the open valleys can be found elk, deer, antelope, bear, mountain sheep and lion, and, occasionally, the bison or mountain buffalo.

The forests are dense and large in extent; from high, during the building of the road, large quantities of ties were cut and floated down the river to Fort Steele. The valleys are fertile and large, and all in all, it is a grand, wild country, where the tourist could enjoy life to his heart's content, in hunting, fishing, and visiting the Indians.

GRENNVILLE—Is a small side-track station eight miles west of Fort Steele, and it is seven miles farther to

RAWLINS—(Usually called Rawling Springs.) This place contains a population of about 500. The railroad company have built here a fine hotel, a round-house of fifteen stables, and machine-shops for dissection repairs.

The surrounding country is rough and broken, covered with sage-brush and flecked with alkali. Close over the town a fine sulphur spring rises from under a bed of blue limestone, gives name to the station. Other springs arise from the seepage of a narrow, wet mine, which extends about a mile above the town. The bed of the ravine, as far as the water extends, is filled with alkali where the pools of stagnant water do not cover it.

From 30 to 40 miles to the north-east of this station, is located the Ferris and Seminole mining districts. There is silver, and said by some people to be very rich. One mill, the Seminole, is in operation, and another will soon be erected. Coal, wood and water is abundant near the mines, and prospects are bright for the future of the district.

Ten miles north of the station a paint mine has been discovered, which prospects now to be very valuable. It is said to be fire-and-water proof. Two mills have been erected at the station for grinding the paint, with a daily capacity of three and ten tons respectively. The Union Pacific Railroad Company are using to paint their cars.

Leaving Rawling, we follow up the narrow ravine then of, through a natural pass about 300 feet wide, which leads between two nearly perpendicular bluffs to 200 feet in height, composed of yellowish-gray stone sand-stone, overlaid with carboniferous limestone. This bluff appears to have extended across the

ravine sometime in the past. Perhaps a large lake was imprisoned above, which kindly burst these huge walls, and left a natural route for the railroad.

Beyond the pass we follow up this dry lake bed through a sage-brush and alkali country to

SUMMIT—A small station where the passenger trains do not stop, and seven miles further arrive at

SEPARATION.—This station derives its name from the fact that at this place the various parties of surveyors who had been together or near each other for the last hundred miles, separated to run different lines to the westward. Elevation, 6,900 feet. We are rapidly rising, and in 15 miles further will be on the summit of the Rocky Mountains.

Artesian wells are quite numerous along the line, most of them having been finished within the past 18 months. They are from 326 feet to 1,145 feet in depth,

NEW MINING MAP OF UTAH COMPILED FROM U.S. GOVT. SURVEYS.

SHOWING THE EXACT LOCATION OF THE RICHEST MINES
EXTENSIVE MINING DISTRICTS ON THE CONTINENT,
EXTENDING 150 MILES NORTH & SOUTH.



flowing from 400 to 1,000 gallons an hour, in one place 26 feet above the surface. By pumping, these wells will supply from 650 to 2,400 gallons of water per hour.

The one at this station is 1,103 feet deep, in which the water stands 10 feet from the surface, and by pumping yields 2,000 gallons per hour.

FILLMORE—Is another station where the cars do not stop. It is eight miles west from Separation, and seven from

CRESTON.—Sage-brush and alkali beds are the rule now, and have been for the last 25 miles, and will be for the next 100 miles. We are now near the summit of the great "back-bone" of the continent—the Rocky Mountains. According to General Dodge, we are now just 7,060 feet above the level of the sea.

Two and a half miles west of this point, a flag, planted by the wife of Captain Clayton, near the track, marks the summit 7,100 feet above the level of the sea. This point is about 185 miles from Sherman, 737 from Omaha, and from San Francisco, 1,177.

On this wild spot, surrounded by few evidences of vegetation—and these of the most primitive form—this little flag-staff marks the centre of the grandest range of mountains on the continent. Amid what seems to have been the wreck of mountains, we stand and gaze away in the vast distance, at the receding lines of hill, valley and mountain peaks, which we have passed in our journey. We feel the cool mountain breeze on our cheeks, but it brings no aroma of life and vegetation with its cooling current. We feel and know that the same sky which hangs so warm and blue over the smiling valleys, looks down upon us now—but how changed the aspect: thin, gray and cold it appears, and so clear that we almost expect to see the stars looking down through the glistering sunbeams. We do not seem to be on the mountain height, for the expanse seems but a ceaseless plain, now arched and broken into ugly, repulsive hills and desolate knolls.

Here, if a spring should arise from this sage-brush knoll, its waters would divide, and the different portions eventually mingle with the oceans which wash the opposite sides of the continent. We enter the cars and pass on the track seeming to be lost but a short distance in our journey. The view from the rear of the car is the same. The track seems to be warped up and dashed out of sight. The curvature of this back-bone gives the track a similar appearance to that witnessed at Sherman. After reaching the higher of Sherman, still this is the continental divide, but the low, broad grassy hills are half a foot below that place. To the north, the Snake Mountains rear their rugged heights, and farther on, still farther to the westward, can be seen the jagged peaks and low peaks of the Sweetwater Range. Still farther to the west and north, the Wind River Mountains rise above the scene in the far distance, their summits hidden in the clouds. Away to the south can be seen the hills which form the southern boundary of the present range where the Bitter Lake Station is situated on the old level of the divide.

With a last look at this rugged barren, desolate region, we speed away over the crest, and I shall have downgraded for the next 18 miles, descending in that distance 1,100 feet.

LATHAM—Is nearly seven miles west, but our train does not stop, and eight miles more brings us to

WASH-A-KIE.—Named after an old chief of the Shoshone Indians, whose portrait will be found on

page 51. At this station is another Artesian well, 638 feet deep, which, at 15 feet above the surface, flows 800 gallons of pure water per hour.

RED DESERT—Is nine miles from Wash-a-kie. The country around here is called the Red Desert, from the color of the barren soil. It is a huge basin; its waters having no outlet. Several alkali lakes are found in it, but nothing lives on its surface. The soil is half between Table Rock and Creston, the extreme points of the desert, 38 miles apart. It is composed of the decomposition of shale and calcareous clays, and is deep red, showing the presence of an hydrous sesquioxide of iron. The southern margin of the basin is mainly sand, which is lifted up by every passing breeze to fall in drifts and shifting mounds.

TIPTON—A side-track, where our train *does not* stop; is six miles west of Red Desert, and seven miles further, and the train *will stop* at

TABLE ROCK.—This station is on the outer edge of the desert, which has an elevation of 6,890 feet. Off to the left can be seen a long line of bluffs, rising from 50 to 500 feet above the surrounding country. They are of red sandstone, which is mainly composed of fresh water shells, worn, cut, and fluted by the action of the elements. One of these bluffs, which gives its name to the station, is level on the top, which rises about 500 feet above the road, and extends for several miles. Heavy cuts and fills are found here, showing that the road is passing through the rim of the desert. After passing through this rim, we go on, through a rough and broken country for ten miles, when we arrive at a station called

BITTER CREEK.—At this place the company have a ten-stall round-house, and a machine shop for repairs.

As we leave this station, we begin the descent of the celebrated Bitter creek, the valley of which we shall follow to Green river, about 60 miles west. The valley is narrow, the bluffs coming near the creek on either side. The stream is small and so strongly impregnated with alkali as to be almost useless for man or beast. The banks and bottoms are very treacherous in places, miring any cattle which attempt to reach its fetid waters. This section was always a terror to travelers, emigrants and freighters, for nothing in the line of vegetation will grow, excepting grease wood and sage-brush. The freighter, especially, who had safely navigated this section, would "ring his popper" and claim that he was a "tough cuss on wheels, from Bitter creek with a perfect education."

From the source to the mouth of this stream, every indication points to the fact that deposits of oil underlie the surface. Coal veins—valuable ones—have been found, and an oil bearing shale underlies a large portion of the valley. The old overland stage and emigrant road follows this valley from its source to Green river. From the bluffs, spurs reach out as though they would like to meet their jagged friends on the opposite bluffs, and around the rough points the cars roll merrily on down, down to the Green.

BLACK BUTTES—Is nine miles down the creek. Four miles from the Buttes we reach and pass

HALLVILLE.—An unimportant station to the tourist, and seven miles further arrive at

POINT OF ROCKS.—Here an artesian well, 1,015 feet in depth, supplies an abundance of pure water.

Extensive coal mines have been opened near this

station, and are being worked by the Wyoming Coal Company, who ship large train-loads daily. In one bluff, in a depth of 80 feet, five veins of coal have been opened—one upon the other—which are respectively one, three, four, five, and six and a half feet in thickness. On the bluff, just above the coal, is a seam of oyster-shells six inches in thickness, which Hayden says "is an extinct and undescribed species, about the size of our common edible one."

The sandstone bluffs, at points along the road, are worn by the action of the elements into curious fantastic shapes, some of which have been named "Caves of the Sand," "Hermit's Grotto," "Water-washed Caves of the Fairies," "Sanko's Bower," &c. Prof. Hayden, in his geological examination of this section of the creek, reported finding "preserved in the rocks the greatest abundance of deciduous leaves of the poplar, ash, elm and maple." He says further: "Among the plants found is a specimen of fan-palm, which, at the time it grew here, displayed a leaf of enormous dimensions, sometimes having a spread of ten or twelve feet. These gigantic palms seem to have formed a conspicuous feature among the trees of these ancient forests." This country presents many curious subjects for study.

At one time stages left this station for the Sweetwater mines to the north-west, but they have been discontinued, and passengers, mails and express now go from Bryan.

A project has been advanced to build a railroad from here north, to Bozeman, Montana. The route proposed would be via Camp Stambaugh, Big Wind river valley and the Upper Yellowstone, distance about 350 miles.

THAYER—A small side-track, five miles further west, is passed without stopping, and six miles more we arrive at

SALT WELLS.—This, until coal was discovered in quantities on the creek, was a wood station. The wood was obtained from five to ten miles south, in the gulches, where also could be found game in abundance—elk, deer, bear, &c.

BAXTER—Is eight miles from the Wells and six from

ROCK SPRINGS.—This station was named after a saline spring of water which boils up out of the bluffs, looking very clear and nice, but it is very degaling—an uncommon thing in this truthful world.

An artesian well has been sunk at this station, 1,145 feet deep. The water flows to the surface at the rate of 900 gallons per hour, and at 26 feet above the surface, flows 571 gallons per hour.

Near here are more coal mines, which yield large quantities, and of good quality.

From this point to Green River, the scenery becomes more grand and impressive, the bluffs rising higher and the gorge narrowing, until the hills seem to hang over the narrow valley with their frowning battlements. Through this gorge we rattle on eight miles, to

LAWRENCE—A small station six miles from

GREEN RIVER.—The end of the Laramie Division. At this station, passenger trains bound west, stop 30 minutes for breakfast, and those for the east—for supper. The meals cost \$1.00 each, and are not the best on the road.

The machine shops, round-house, &c., formerly at Bryan, are now at this place.

Green River, is now the county seat of Sweetwater County (Wyoming Territory) it having been recently changed from Atlantic City. Population about 200.



Down the Weber—near Morgan City.

A wagon road has been projected from this station, up the east side of Green River via Sweetwater, to the Yellowstone Country—and a stage line started over it—but so far it's only talk.

Over twenty years ago, an important trading post was located near this station—just below, on the opposite side of the river. In early days, the Mormons had a ferry here, and as the river was seldom fordable—except late in the fall—they reaped a rich harvest of from \$5 to \$20 a team for crossing them over the river, according as the owners were found able to pay. Those times, were comparatively only yesterday, and we might say with the juggler "Presto!" and we have the "Iron Horse," and the long trains of magnificent Palace Cars, crossing the substantial railroad bridge, conveying their hundreds of passengers daily—passengers from every land and clime—and whirling them across the continent from ocean to ocean, on schedule time. Do these passengers, while partaking of a princely meal, lying at ease sipping their wine, (or possibly ice water, and quietly smoking their segar, ever think of the hardy pioneers who toiled along on foot and alone, many times over *seven months* traveling the same distance that can now be made in *five days*? These pioneers suffered *every kind* of hardship, many even unto death, and those that remain are fast passing away. Yet, the fruits of their adventurous and daring intrepidity can be seen on every hand.

The bluffs near this station present a peculiar formation called by Prof. Hayden, the "Green River Shales." On page 37, we present a beautiful illustration of the bluffs, the station, and the bridge.

The walls of these bluffs rise perpendicular for hundreds of feet, are of a grayish buff color, and are composed of layers, apparently sedimentary deposits of all thicknesses from that of a knife blade to two feet. At the base of the bluff the layers are thin and composed of arenaceous clay, with laminated sandstone, mud markings, and other indications of shallow water or mud flats; color for 100 feet, ashen brown. Next above are lighter colored layers, alternate with greenish layers and fine white sand. Passing up, clay and lime predominate, then come layers of boulders, pebbles, and small nodules.

There are also seams of very fine black lime-stone, saturated with petroleum. Near the summit, under the shallow calcareous sand stone there are over fifty feet of shales that contain more or less of oily material. The hills all around are capped with a deep rusty yellow sand stone, which presents the peculiar castellated forms which, with the banded appearance, have given so much celebrity to the scenery about this station.

The point where our photographer stood to take the picture, was about one half mile below the bridge and immediately opposite the mouth of the noted Bitter creek, down which, in years past, rolled the wagons of the pioneer-emigrants of the *far west*, on their weary way seeking new El Dorados towards the setting sun.

OLD TOWN—A short distance from the station to the southward is the site of the old deserted city of Green river, near the old emigrant crossing, and thereby hangs a tale. This city was laid out in July, 1868, and the September following contained 2,000 inhabitants, and many substantial wood and adobe buildings, and presented a permanent appearance. At that time it was thought by the citizens that the railroad company would certainly erect their division buildings near the town, and it would become an important station in consequence. But the railroad company opposed the town company, bridged the river, and as the road stretched away to the westward, the town declined as rapidly as it arose, the people moving on to Bryan, at which place the railroad company located *their city*—and sold lots.

Geographical indications *from the first* pointed to the fact that the railroad company must eventually select this place in preference to Bryan, which is *now* an accomplished fact.

GREEN RIVER.—This stream rises in the north-west of the Wind River Mountains, at the base of Fremont's Peak. The source of the river is found in innumerable little streams, about 200 miles from the railroad crossing. About 150 miles below the station the river empties into the Colorado river. The name "Green River" implies the color of the water, but one would hardly expect to behold a large, rapid river, whose waters possess so deep a hue. The river, for some distance up the stream, commencing about fifty miles above the station, runs through a soil composed of decomposed rock, slate, etc., which is very green, and easily washed and worn away, which accounts for the color of the water. At all seasons of the year the water is very good—the best, by far, of any found in this part of the country. The tributaries abound in trout of fine flavor, and the main river is well stocked with the finny tribe. Game of all kinds abound along the river and in the adjacent mountains.

The lower stream presents a very marked feature, aside from the high bluffs of worn sand stone and sedimentary deposits. These features are strongly marked, above the bridge, for several miles; but of that we have already written.

From Green river station, the exploring expedition of Maj. Powell started on the 24th of May, 1869. The party consisted of about a dozen well-armed, intrepid men, mostly western hunters. They had four well-built boats, with which to explore the mysterious and terrible cañons of Green river and the Colorado. These gorges were comparatively unknown, the abrupt mountain walls having turned the travel far from their sterile shores. Science and commerce demanded a solution of the question: "Can the upper Colorado be navigated?"—at least so thought Major Powell, and he undertook to solve the problem.

The party encountered hardships, like all exploring expeditions, discovered beautiful scenery, and in their

report have thrown some light on the mystic heretofore not much traveled country. The expedition afforded the Major the mat course of lectures, and demonstrated the fact that the Colorado cañon *is not* navigable.

Leaving the station, we cross Green river bridge, the cars passing along through almost over the river in places, affording a view of the frowning cliffs on the east side of Twenty miles to the north-west a large but pilot-knob, stands in isolated loneliness. turn to the left leaving the river, and pass dreary barren waste for 13 miles, and arrive

BRYAN—A deserted old station. The ground around is barren, composed of red sand, and in the extreme. We are again increasing the distance.

The road was completed to Bryan, September, and large amounts of freight were delivered and re-shipped to the westward.

From this station to the northward, it is about 90 miles to Sweet-water.

Regular four-horse passenger coaches, carrying U. S. Mail and Express, leave Bryan tri-weekly for Sweet-water country; fare, \$20. Freight for government posts, and country to the northward, City, South Pass, &c., are hauled from the wagon teams.

Bryan, during its early days, was quiet and troubled with the usual number of robbers and desperadoes. When the Vigilance committee was in session here, in 1868, they waited for a desperado, and gave him 15 minutes to show himself. He mounted his mule and said: "Gentlemen—mule don't buck, I don't want but commend his judgment, and consider that *his head was level*."

BLACK'S FORK is approached at this station in the Uintah Mountains, about 100 miles to the west, and empties into Green River, below City. The bottom lands of this river, for some distance above Bryan, are susceptible of irrigative thought to be capable of raising small grain.

SWEET-WATER COUNTRY.—The principal city is called "The Sweet-water Country," are Hami City; next, Atlantic City; next, Hami places contain respectively, about 1,000, 200, and 100 population. They are situated four miles apart. The principal occupation of the citizens is gold mining. Many of the mines are said to be rich and yield good pay from the surface. The mines are on Sweet-water River, a tributary of the Colorado, which passes through very rich agricultural country.

Wind River is a tributary of the Big Horn, which empties into the Yellowstone. The valleys and mountains furnish game in abundance, including deer, elk, antelope, mountain sheep, cinnamon, brown, black and grizzly bears.

Indian difficulties have retarded mining, and business operations very much in the past.

About 55 miles from South Pass, on the way to Buffalo Bull Lake. It is said that no boat ever floated on its surface, the Indians being superstitious about a famous old bull, who, a herd had been killed, plunged into this lake has often been seen and frequently been heard. The Indians have a mortal fear of the lake's strange inhabitant, and few can be induced

ture into its waters. A few winters since, some Indians went out on the ice to cut a fish-hole, and had just completed their work when they heard the bull directly beneath them, and dropping fishing-tackle, knives and blankets, they fled for their lives, and could never be prevailed upon to go back; strange lake that—good joke on the "friendlies."

Returning to, and leaving Bryan, we ascend Black's Fork, crossing it twice, and pass

MARSTON—An unimportant station, eight miles from Bryan. Soon after passing the station, to the northward the old Mormon trail from Johnson's Ford on Green River, 12 miles above Green River station, can be seen coming down a ravine. The route is marked for some distance by a line of telegraph poles which lead to Sweet-water.

GRANGER—Is eight miles west of Marston. The last seven and a half miles of track before reaching this station was laid down by Jack Caseman in one day. The station is named for an old settler, Mr. Granger, who keeps a ranch near by.

Just after leaving this station we cross a bridge over Ham's Fork, immediately at its junction with Black's Fork.

Ham's Fork rises about forty miles to the north-west, in Hodge's Pass. The bottom lands of this stream are very productive of grass; the upper portion of the valleys, near the mountains, produce excellent hay-crops. It is supposed that the small grains would flourish here under irrigation, but the experiment has not yet been tried on a large scale, though the whole valley can be irrigated with but little labor.

In 1867, the Union Pacific Railroad Company surveyed a route from this point—Ham's Fork—via Salmon Falls, Old's Ferry on the Snake River, and Umatilla, to Portland, Oregon. The route, as surveyed, is 460 miles by railroad, 315 by steamboat.

After crossing the bridge we leave Black's Fork, which bears away to the left, as also the old stage road, which follows up that stream to Fort Bridger. Our course is due west, following up the bank of the Big Muddy, which we cross and re-cross several times before we reach Piedmont, 50 miles ahead, where we shall leave it. The valley of the stream is narrow, producing sage-brush and greasewood in luxuriance, and possibly would produce good crops, with irrigation.

CHURCH BUTTES—Is ten miles from Grangers. It is a noted station for moss agates.

These beautiful stones are found along the line of the road from Green River to Piedmont, but in greater profusion here than at any other point near the road.

In some places the ground is literally paved with these gems. The flinty boulders vary in size from a pea to about five inches in diameter. The outside of these pebbles is dark gray and a greenish blue in spots. Should the reader conclude to stop over and hunt moss agates, our advice would be: take your time and a hammer with you; crack the rocks and pebbles beneath your feet; and when you find one of the agates, if it looks dull and rusty, do not throw it away in hopes of finding a prettier one; for often the dull-looking stone, when rightly cut and dressed, is very beautiful and valuable. Most of the agates are valueless, but some are very beautiful, and will readily sell for from \$50 to \$75.

Church Buttes station derives its name from the peculiar formation of the sandstone bluffs, which extend for many miles on the left-hand side of the road; they are about ten miles distant. At the old Church Buttes station, on the "old overland stage road,"—

about nine miles to the south, they rise in lofty domes and pinnacles, which, at a distance, resemble the fluted columns of some cathedral of the olden time, standing in the midst of desolation; its lofty turreted roof and towering spires rising far above the surrounding country; but on nearer approach the scene changes, and we find a huge mass of sandstone, worn and washed by the elements until it has assumed the outline of a church of the grandest dimensions, it being visible for a great distance. Again westward, nine miles, we pass

HAMPTON—An unimportant station, and eight miles further, arrive at

CARTER.—This station is named for Judge Carter of Fort Bridger. This gentleman has a large warehouse at this point, where freight is received for Virginia City, Helena and Bannock City, Montana Territory. This route is said to be 80 miles shorter than any other road leading from the Union Pacific Railroad to these cities.

FORT BRIDGER.—This post is ten miles to the south-east—over the bluffs. It was established in 1858, by General A. S. Johnson. Latitude 41 deg. 18 min. and 12 sec.; longitude 110 deg. 32 min. and 38 sec.

Black's Fork, which runs through the centre of the parade ground, affords excellent water, and with Smith's Fork, a stream five miles south-east, affords as fine trout as there is in the country.

The chief of the Shoshones, Wash-a-kie, whose picture will be found on page 51, is almost always at this post. He is a very kind, honorable Indian, and has been the steadfast friend of the whites for many years.



JAMES BRIDGER

This post was named after JAMES BRIDGER, the renowned hunter, trapper and guide, who lived in this country nearly half a century. (See portrait above.)

"Jim" Bridger is undoubtedly the most noted of all the old plains men, and early pioneers in our far western country. Through the courtesy of W. A. Carter, of Fort Bridger, we have been furnished with a



fine picture of Mr. Bridger, and a short sketch of his eventful life—from which we condense.

"Jim" was born in Richmond, Virginia—sometime about the last of the last century—and while he was very small, his parents emigrated to St. Louis, Mo., where, shortly after their arrival, they both died of an epidemic then prevailing in that city. Having no one to look to or care for him, he engaged to accompany a party of trappers who were then fitting out for a trip to the Rocky Mountains.

Naturally devoid of even the commonest rudiments of education, he crossed the then almost wholly unknown and trackless plains, and plunged into the pathless mountains. Greatly attracted by the novelty of the sport, at that time quite profitable, he entered eagerly upon the business; being naturally shrewd, and possessing a keen faculty of observation, he carefully studied the habits of the beaver, and profiting by the knowledge obtained from the Indians—with whom he chiefly associated, and with whom he became a great favorite—he soon became one of the most expert trappers and hunters in the mountains.

Eager to satisfy his curiosity, a natural fondness for mountain scenery, and a roving disposition, he traversed the country in every direction, sometimes in company with Indians, but oftener alone—he familiarized himself with every mountain peak, every gorge, every hill, and every land mark in the country. He pursued his trapping expeditions north to the British possessions, south to Mexico, and west to the Pacific Ocean. In this way he became acquainted with all the tribes of Indians in the country, and by long intercourse with them, learned their language, and became familiar with all their signs. He adopted their habits; conformed to their customs, became imbued with all their superstitions, and at length excelled them in strategy. The marvellous stories told by Bridger are numerous, but to have not the space for a "specimen."

In after years when it became necessary to send military expeditions through the far western country, the Government employed Bridger as a guide, and his experience was turned to good account as an interpreter of Indian language.

He is now living in the vicinity of Kansas City, Mo., but has outlived the sphere of his usefulness, there being no longer any portion of the West unexplored, and having reached the period of second childhood.

As this post is one of great historic interest, we publish the following

MEMORIES OF FORT BRIDGER, which were handed to us by one of our friends, who was with the first party of soldiers who arrived at the place where the fort now stands:

"Early in the winter of 1857, on the 23d of November, the winds were blowing cold and bleak over the snow-covered ridges surrounding Bridger—a town with no significant name, but nothing but a name except an adobe building with the appellation of fort attached to it, built by the Mormons, and surrounded by a small fort and *chevaux de frise* pierced for three six-pound mountain howitzers.

The U. S. forces, comprising the fifth, seventh and eighth Infantry, second dragoons, and four companies of fourth artillery, the whole under command of Brigadier-General Albert Sidney Johnson, were on their way to Lake City. The fifth, under Major Ruggles; the sixth, under Colonel Morrison; the second dragoons, under Colonel Howe; the fourth artillery, under Major Adams; entered Bridger on the 23d of November, and established a camp; while a part of the supply train accompanying the expedition, numbering at least 100 wagons, was behind, delayed by the heavy snows, en-

tirely separated from the command, and forced to encamp about one mile from each other on the Big and Little Sandy Rivers. [NOTE.—These streams are tributaries of Green River on the east, rising near South Pass, about 160 miles north of Bridger.]

"While encamped there, a party of Mormons under command of Orson Pratt, the generalissimo of the so-called Mormon Legion, assisted by one Fowler Wells, another formidable leader of the Mormon church militant, dashed in and surrounded the trains in the dark hours of the night, completely surprising the entire party, not one escaping to give the alarm. After taking the arms and equipments from the men, they gave them a very limited amount of provisions to last them through to Leavenworth, Kansas, allowing them at the rate of five head of cattle for twenty men, and then started them off in the wilderness to reach that place—about 1,000 miles distant—with no weapons other than their pocket knives with which to protect themselves against the Indians, or to procure game when their limited supply of provisions should become exhausted. After accomplishing this soldierly, humane and Christian act, the Mormons set fire to the train, burning up everything which they could not carry away, and retreated, driving the stock with them, while those left to starve turned their faces eastward. There were 230 souls in that despoiled party; only eight of whom ever reached the border settlements; the knife of the savage, and starvation, finishing the cruel work begun by the merciful Mormons. The survivors reached Leavenworth in June, 1858, bringing the sad intelligence of the fate of their comrades.

"The loss of these trains necessarily cut short the supplies in Bridger. The troops were put on short rations, and, to add to their horror, the beef cattle accompanying the expedition had nearly all frozen to death, leaving but a few head in camp.

"At Black Fork, the command lost over 300 head in one night; the horses and mules dying in about an equal ratio. Before reaching Bridger, the dragoons were compelled to leave their saddles which they buried in the snow, the horses being unable to carry them. The animals were compelled to subsist on sage-brush for two-thirds of the time, and then, to obtain this fibrous shrub, they were compelled to remove snow several feet deep. The men had no other fuel; no water only as they melted snow, for three weeks before reaching Bridger.

"When the news arrived at the camp that the trains were destroyed, the troops immediately began to forage for anything that was palatable, well knowing that no supplies could reach them before late in the spring. The snow was then, on an average, from six to seven feet deep, and the game had mostly left the hills. The rations were immediately reduced one half, but even this pittance failed on the 28th day of February, when one quarter ration per man was issued, being the last of all their stores. Two 100 pounds sacks of flour were secured by Major E. R. S. Canby, who gave for them \$300 in gold. They were placed in his tent, which stood where the old flag staff now stands, and he supposed his treasure secure.

"But that night a party of men belonging to Company I, 10th Infantry, commanded by Lieutenant Marshall, made a *coup d'état* on the tent, pulling out the pins and throwing the tent over the astonished Major, but securing the flour, with which they escaped in the darkness, and succeeded in hiding it about a mile from camp, in the sage-brush. All was confusion. The long roll was beaten; the troops turned out and answered to their names, no one being absent. So the matter ended for the time. The next day, at guard mount, the Major commenced a personal search among

the tents for his flour. He found—what? In one tent, two men were cooking a piece of mule meat; in another, he found five men cutting up the frozen skin of an ox, preparatory to making soup of it, the only other ingredient to the savory mess being a little flour. Overcome by the sight of so much wretchedness, the Major sat down and cried at his inability to assist them. He asked the men if they could obtain nothing better to eat, and was answered in the negative.

"The severity of the suffering endured by the men nearly demoralized them, still they went out foraging, dragging their wasted forms through the snow with great difficulty. Some would meet with success in their hunts at times; others would not. The mules and horses were either killed and eaten by the men, or died of cold and hunger, which left them without the means of supplying their camp with wood, only as they hauled it themselves. But the men did not murmur. Twenty or thirty would take a wagon and haul it five or six miles to the timber, and after loading it with wood, haul it to camp. Each regiment hauled its own wood, thus securing a daily supply. Some days a stray creature would be slain by the hunters, and there would be rejoicing in the camp once more.

"Early in the spring of 1858 most of the men departed for Salt Lake City, leaving companies B, D and K of the 10th Infantry, and company F, 7th Infantry. Twenty-seven men from each company were detailed to go to the pineries, 25 miles away, to cut timber with which to erect quarters. On arriving in the pinery, they found an old saw mill and race, which had been used by the Mormons, and everything convenient but the necessary machinery. Luckily the quarter-master's department had the required machinery, and soon they had a saw mill in good running order. By the 15th of September, 1858, the quarters were up and ready for use. They were large enough for five companies, including a chapel, hospital, sutler's store, guard house, etc.

"The Fourth of July, 1858, was duly observed and honored. The flag staff was raised in the centre of the parade ground, the flag hoisted by Major Canby, and prayers said by Major Gatlin, and the Fourth of July was duly celebrated.

"On the 23d of September, 1858, a large train of supplies arrived, causing great joy among the troops. Two days later three long trains of supplies filed through the place on the way to Salt Lake City."

Returning to the railroad again,

BRIDGER—Is a station ten miles west of Carter. For the next two stations we shall ascend rapidly. The bluffs are nearer and we cross and re-cross the "Muddy" very often, the little stream being nearly as crooked as the streets in Boston.

LEROY—A side track, is five miles from Bridger. Near here the old overland road comes down the mountains, crossing the railroad to the west, at Burns' old rancho, the route marked by the line of telegraph poles. Three miles west, on this stage road, are the Soda Springs.

PIEDMONT—Is ten miles from Leroy. The country is rough and broken, and the road is very crooked, almost doubling back on itself in places. The track is laid over many long and high trestle bridges, which, during the past year, have been nearly all filled up with gravel.

To the south, the long range of the Uintah Mountains can be seen, well timbered with pine and cedar. A great many ties were obtained in this section while the road was being constructed. At present the principal occupation of the citizens of Piedmont appears to be the burning of charcoal.

ASPEN.—After leaving Piedmont, the grade of the road is very heavy and passes through six long snow sheds in the nine miles traveled. This station is the next in height to Sherman, on the line of the Union Pacific. Elevation, 7,835 feet; is 977 miles from San Francisco, and 937 from Omaha, situated on the lower pass over the Uintah Mountains. The station derives its name from the high mountain to the north, called "Quaking Asp." The summit of this mountain is covered with snow during the most of the year. The "quaking asp," or aspen, a species of poplar, grows in profusion in the gulches and on the side of the mountain. The "old overland stage road" winds around the northern base, while the railroad girds its southern borders, nearly encircling it between the old and new decay and death marking the one, life, energy and growing strength, the other.

Leaving Aspen, the train passes through three long snow-sheds and one tunnel, and after five miles of down grade arrives at

HILLIARD.—Here can be seen, to the right, a great number of kilns for burning charcoal. The wood used is pine, hauled from the mountains to the southward. In each kiln is placed 25 cords of wood, which yields about 40 bushels of coal to the cord.

Discoveries of gold, hard coal, sulphur springs, and an oil well are reported near by, but as yet have not created much excitement.

Two miles from Hilliard, to the right of the road, we come to the site of old

BEAR RIVER CITY, of early railroad days, but now entirely deserted. It is situated in a little valley at the mouth of a ravine, where the old overland stage road comes down from the north of Quaking Aspen Mountain. At one time this place was quite populous and was supposed likely to become a permanent town. At this point the roughs and gamblers who had been driven from point to point westward, made a stand, congregating in large numbers. They swore that they would be driven no farther; that here they would stay and fight it out to the bitter end. The town contained about 1,000 law-abiding people, and when the roughs felt that trouble was coming on them, they withdrew to the hills and organized for a raid on the town. Meanwhile some of the roughs remained in the town and among them were three noted garroters, who had added to the long list of their crimes that of murder. The citizens arose, seized and hung them. In this they were sustained by all law-abiding people, also by the *Index*, a paper which had followed the road, but was then published here. This hastened the conflict and on the 19th of November, 1868, the roughs attacked the town in force. This attack was repulsed by the citizens, though not until the Bear river riot had cost sixteen lives, including that of one citizen. The mob first attacked and burned the jail, taking then one of their kind who was confined there. They next sacked the office and destroyed the material of the *Frontier Index*, which was situated in a building close to the railroad, on the south side. Elated with their success, the mob, numbering about 300 well-armed desperadoes, marched over to the north side up the main street, and made an attack on a store belonging to one of the leading merchants. Here they were met with a volley from Henry rifles, in the hands of brave and determined citizens, who had collected at the store. The mob was thrown into confusion, and fled down the street, pursued by the citizens, about thirty in number. The first volley and the running fight left fifteen of the desperadoes dead on the street. The number of wounded was never ascertained, but

eral bodies were afterwards found in the gulches among the rocks, where they had crawled away and died. One citizen was slain in the attack on the city. From this time the roughs abandoned the city.

The town declined as soon as the road was built past and now there is nothing left to mark the place, except a few old chimneys, broken bottles and scattered tin cans. Passing on, the bluffs are high and broken, rising close to the road, leaving but a narrow valley.

MILLIS—A sidetrack, is three miles from Hilliard and one beyond the old city—but our train does not stop. About one mile from Millis, we cross a trestle bridge 640 feet long, over

BEAR RIVER.—This stream rises about sixty miles to the south in the Uintah and Wahsatch Mountains. It is many tributaries, which abound in very fine trout. The business is carried on in catching and salting them for the trade. The river here runs almost due north, to Port Neuf Gap. Before reaching the Gap, it flows through Bear Lake, and the valley of that name.

The lake, from which it takes its name, is in reality a widening of Bear River. It is about 15 miles long by seven wide, and contains plenty of trout and other fish. There are some pretty Mormon settlements at different points along the lake shore.

Bear Lake Valley is a point of great interest on account of the fertility of the soil, its romantic situation, the beautiful and grand scenery of rock, lake and mountain in that neighborhood. The valley lies in Rich County, the most northern county in Utah Territory, and is about 25 miles long, with a varying width.

There is a report, which is strongly believed by some of the old settlers, and it is sustained by Indian tradition, that aquatic monsters, whose shapes are difficult to describe, inhabit these waters. Whether this be the case or not we do not pretend to say, but this we do know—we never saw them.

The entire region is wild and picturesque, and would well repay the tourist for the time spent in visiting it. About 30 miles distant, to the north, are the far-famed Soda Springs of Idaho, situated in Oneida County, Idaho Territory.

The usual routes by which this valley is reached, are via Ogden or Brigham City. By the former the route is shorter; by the latter, a better road. Should we leave Ogden, we proceed up Ogden cañon for 12 miles, across Ogden Valley, and over a rough mountain road, a distance of over 80 miles further, into Bear Lake Valley. If via Brigham City, we take the Utah Northern Railroad via Smithfield, Hyde Park, to Franklin, then turn east. Distance about 165 miles.

At Port Neuf Gap, the river turns, and thence its course is nearly due south, until it empties into Great

Salt Lake, near the town of Corinne. The course of the river can best be understood when we say that it resembles the letter U in shape. From where it rises it runs due north to latitude 42 deg. 30 min., then suddenly turning, it runs south to latitude 41 deg. 43 min., before it finds the lake. Within this bend lies the Wahsatch Mountains, a spur of the Uintah, a rugged, rough, bold, but narrow range.

We now return to the road, and pass down the valley, cross Yellow Creek, one of the tributaries of Bear River, and nine miles from Millis, arrive at

EVANSTON.—This is a regular eating station, where trains from the east and west stop 30 minutes for dinner. The railroad company have erected a 20-stall round-house, repair shops, hotel, freight and passenger buildings, and the place has improved otherwise very much. It now contains about 600 inhabitants. Elevation 6,835 feet.

Evanston is the county seat of Uintah County, Wyoming, 957 miles from either Omaha or San Francisco, just half way between the Missouri and the Pacific Ocean.

The railroad was completed to this place late in the fall of 1868, and a large amount of freight was delivered here for Salt Lake Valley and Montana.

Saw-mills supply lumber for all local purposes from the almost inexhaustible pine forests on Bear River, to the southward.

About three miles east to the right of the road, and of Bear River Valley, is located the town of

ALMA.—Here are located some of the most valuable coal mines on the road, and which supply large quantities to the railroad company. The mines are said to be very extensive, easily worked, yielding coal of good quality, and employ about 800 men, most of which are Chinese. From 150 to 200 car loads are shipped from Alma per day to towns on the line of the Central Pacific railroad, to Virginia City, Gold Hill, and Carson in Nevada, and to San Francisco. The Union Pacific also uses large quantities of this coal.

A branch railroad has been constructed to the mines, leading off about half a mile north of Evanston.

Soon after leaving Evanston we leave Bear river to the right, and follow up a beautiful little valley, eleven miles to

WAHSATCH.—This station was once a regular eating station, with round-house and machine shops of the company located here; but a change has been made to Evanston, and the place is now deserted.

Game is found in the hills—deer, elk, and antelope. In the Uintah and Wahsatch ranges, brown, black and cinnamon bear are common.



RAILROADING FORTY-THREE YEARS AGO THE FIRST STEAM RAILROAD TRAIN IN AMERICA:

The above illustration was drawn and engraved from the original painting in the possession of the Connecticut Historical Society, and represents an Excursion Train on the Mohawk and Hudson R. R. from Albany to Schenectady, N. Y., in 1811, the first steam train in America. The engine was the "The John Bull," imported from England, as well as the engineer, John Hampton, expressly for this road at large expense. Her cylinder was 5 1/2 inches, 18-inch stroke, wheels 4 1/2 feet. The boiler had thirty copper tubes, five feet long, four inches in diameter. Connecting rods were worked on double cranks on front axle. Weight of engine complete, four tons. The tender represents the method of carrying the fuel—wood—in barrels, with a few sticks handy for immediate use. The cars were regular stage bodies set on car wheels. On this grand excursion trial trip were sixteen persons who were then thought venturesome, many of whom have since filled important positions in the councils of the country. Here is food for thought and comparison with the present day.

On leaving Wahsatch, we arrive at the divide and head of Echo cañon, one half mile distant. Here we find the longest tunnel on the road, 770 feet in length, out through hard red clay and sand stone. When the tunnel was completed, it was approached from the east by two long pieces of trestle work, one of which was 230 feet long and 30 feet high; the other, 450 feet long and 75 feet high, which have been recently filled in with earth. The tunnel opens to the westward, into a beautiful little cañon, with a narrow strip of grassy bottom land on either side of a miniature stream, known as the North Fork of Echo. The hills are abrupt, and near the road, leaving scarcely more than room for a roadway, including the grassy land referred to. Along these bluffs, on the left hand side of the stream, the road-bed has been made by cutting down the sides of the hills and filling hollows, in some places from 50 to 75 feet deep.

Before the tunnel was completed, the road was laid temporarily from the divide into Echo cañon by a Z or zigzag track, which let the cars down to the head of the cañon. The great difficulty to overcome by the railroad company in locating the road from this point into Salt Lake Valley was the absence of spurs or sloping hills to carry the grade. Every thing seems to give way at once, and pitch headlong away to the level of the lake. The rim, or outer edge of the table lands, breaks abruptly over, and the streams which make out from this table land, instead of keeping their usual grade, seem to cut through the rim and drop into the valley below, there being no uplands to carry them.

By the present line of road, the cars enter Echo cañon proper at the little station of

CASTLE ROCK.—This station derives its name from the long line of sand stone bluffs on the right hand side of the cañon, which are worn and torn away until, in the distance, they have the appearance of the old feudal castles, so often spoken of, but so seldom seen, by modern tourists. For a long distance these rocks line the right hand bank of the cañon, their massive red sand stone fronts towering from 500 to 2,000 feet above the little valley, and bearing the general name of "Castle Rocks."

The cars descend the cañon amid some of the grandest and wildest scenery imaginable. We do not creep along as though we mistrusted our powers, but with a snort and roar the engine plunges down the defile, which momentarily increases to a gorge, only to become, in a short distance, a grand and awful chasm. About seven miles below Castle Rock, the traveler can behold the natural bridge, a conglomerate formation, spanning a cleft in the wall on the right hand side. This

HANGING ROCK.—Of Echo has more than a local reputation. (See page 47.) It gave the name to one of the overland stage stations, when the completion of this road was—but in the dreams of its sanguine projectors—an undefined and visionary thing of the future.

The left hand side of the cañon presents but few attractions compared with the bolder and loftier bluffs opposite. The wall breaks away and recedes in sloping, grassy hillsides, while we know not what lies beyond these walls to our right, for they close the view in that direction. Wall, solid wall, broken wall, walls of sand stone, walls of granite, and walls of a conglomerate of both, mixed with clay, rise far above us, and shut from our vision whatever lies beyond.

The beauties of Echo cañon are so many, so majestic, so awe inspiring in their sublimity, that there is little use in calling the traveler's attention to them. But as

we rush swiftly along, seemingly beneath these towering heights, we can note some of the most prominent features.

The only difficulty will be that one will lose them all, as the cars thunder along, waking them among these castellated monuments of red rock towering domes and frowning buttresses gave birth to this remarkable opening in the Wahsatch tains. Four miles below Hanging Rock the wall in massive majesty—the prominent features of the cañon. Rain, wind and time have combined to them, but in vain. Centuries have come and gone since that mighty convulsion shook the earth's centre, when Echo and Weber cañons sprung into existence—twin children—whose birth was heralded by throes such as the earth may never feel again. Still the mighty wall of Echo remains, bidding defiance alike to time and his co-laborers—the elements hang the delicate fret and frost work from the still the pillar, column, dome and spire stand forth in all their grand, wild and weird beauty to trance the traveler, and fill his mind with awe and awe.

MORMON FORTIFICATIONS.

About six miles below Hanging Rock, upon the most heights of the towering cliffs, a thousand feet above the bed of the cañon, can be seen the fortifications erected by the Mormons to defend themselves against the army under Johnson, sent out in 1857 by Uncle Sam. These fortifications consist of great rocks, placed on the verge of the precipice, which were to be toppled over on the heads of the soldiers, but the experiment was never made, so the rocks remain, to be used on some other foe, or as the evidence of a people's folly.

On goes the engine, whirling us past castle rock, towering column and rugged battlements, down the ravines which cut the walls from crest to base, through chasms, shooting over bridges and flying past under the overhanging walls, (see Steamboat page 67,) when, after crossing Echo creek three times in twenty-six miles, we rush past the mouth of Cave and Pulpit Rock, our engine giving a scream of warning to the brakemen, who, "slamming on the brakes," bring the train to a stop, and then go out once more to examine the country, Weber and Echo City station.

Before we take final leave of Echo cañon we have had a late and thrilling incident in its nature, but ending without serious results, which occurred during the construction of the road from Echo City to the mouth of Weber, and is known as

PADDY MILES' RIDE.—Mr. Miles, or "Paddy," as he was familiarly called, was foreman to the Crofutt Brothers, who laid the track of the Union Pacific. One morning, Paddy started down Echo cañon with a long train of flat cars, sixteen in number, loaded with ties and iron rails for the road below Echo City. They were then, as now, the station, switches, etc. Every reader will remember that from the divide down the mouth of Echo cañon is heavy grade, no level, and that which cars would slack their speed.

The train had proceeded but a few miles down the cañon, going at a lively rate, when the engineer discovered that the train had parted, and four loaded cars had been left behind. Where the train parted was not easy, hence that portion attached to the locomotive had gained about half a mile on the stray car when discovered, they were on heavy grade and were running down on the train with lightning speed. What was to be done? The leading train could not stop to pick them up, for, at the rate of speed at which they

proaching, a collision would shiver both trains, devastating them and the lives of those on board.

There were two men, Dutchmen, on the loose cars, one might put on the brakes, and stop the runaway. A whistle was sounded, but they heard it not; they were fast asleep behind the pile of ties. On came the train, fairly bounding from the track in their unguided path, and away shot the locomotive and train. Away it flew, on, around curves and over bridges, past rocky points and bold headlands; on with the speed of wind, but no faster than came the cars behind it.

"Let on the steam," cried Paddy, and with the whistle chock open, with wild terrible screams of the whistle, the locomotive plunged through the gorge, the mighty rocks sending back the screams in a thousand ringing echoes.

"Off with the ties," shouted Paddy, once more, as he whistle shouted its warning to the station men ahead to keep the track straight and free, for there was no time to pause—that terrible train was close on to them, and if they collided, the cañon would have a fearful item added to its history. On went the train past the side-tracks, the almost frantic men throwing off the ties, in hopes that some of them would remain on the track, throw off the runaways, and thus save the forward train. Down the gorge they plunged, the terror keeping close by them, leaping along—almost flying, said one, who told us the tale—while the locomotive strained every iron nerve to gain on its dreaded follower. Again the wild scream of the locomotive of "switches open," rung out on the air and was heard and understood in Echo City. The trouble was surmised, not known, but the switches were ready, and if the leading train had but the distance it could pass on and the following cars be switched off the track, and allowed to spend their force against the mountain side. On shot the locomotive, like an arrow from the bow, the men throwing over the ties until the train was well nigh unloaded, when just as they were close to the curve by which the train arrives at the station, they saw the dreaded cars strike a tie, or something equally of service, and with a desperate plunge rush down the embankment, into the little valley, and creek below. "Down breaks," screamed the engine, and in a moment more the cars entered Echo City, and were quietly waiting on the side-track for further developments. The excited crowd, alarmed by the repeated whistling, was soon informed of the cause of these screams, and immediately went up the track to the scene of the disaster,

to bring in the dead bodies of the unfortunate Dutchmen, who were surely crushed and torn in pieces. When they arrived at the scene of the disaster, they found the poor unfortunates sitting on the bank, smoking their pipes and unharmed, having just woke up. The first they knew of the trouble was when they were pitched away from the broken cars on the soft green sward. The debris of car frames, wheels and ties gave them the first intimation they had received that something was the matter.

Directly ahead of our train, as it emerges from Echo cañon, coming in from the South, is

WEBER RIVER. It rises in the Wahsatch Mountains, 70 miles to the south, its waters being supplied by thousands of springs, many larger tributaries, and the everlasting snows of this rugged mountain range. It empties into the Great Salt Lake, just below Ogden, about 50 miles from Echo City. The valley of the Weber, from Echo City, up to its source, is very fertile, and thickly settled by the Mormons. Three miles above this station is Chalk creek, where a fine coal-bank has been discovered. Three miles beyond this point is Coalville, a Mormon settlement of 1,000 inhabitants—a thriving village. Its name is derived from the carboniferous formations existing there. The coal-beds are extensive, some of the veins being of good quality, others being lignite. The Summit County Railroad, a narrow-gauge, is completed from Echo City to Coalville, seven miles.

Seven miles beyond Coalville is the pleasant village of Winship, situated at the junction of Silver creek and Weber river, containing 1,000 inhabitants. The "old stage road" followed up Weber to this point, thence up Silver creek via Parley Park, and thence to Salt Lake City, 50 miles distant from Echo.

PARLEY PARK. This is a beautiful valley on the old stage road, about five miles long by three miles wide. It is very fertile, producing fine crops of small grain. Several hundred settlers have located and made themselves homes. There is a fine hotel, once kept as a stage station, now kept by William Kimball, eldest son of Heber C. Fish, in any desired quantity, can be caught in the streams, and game of many varieties, including deer and bear, inhabit the adjoining mountains. It is one of those pleasant places where one loves to linger, regrets to leave, and longs to visit again. We earnestly advise tourists to visit it; they will not regret a week or month among the hills and streams of the upper Weber. Near this point gold and silver mines have been discovered, which prove to be very rich, and the prospects now are that the "Park" will become quite a mining centre.

Returning, we stop a few moments at

ECHO CITY—Nine miles from Hanging Rock. The town is situated at the foot of the bluff, which towers far above it. As the cars enter the city from Echo cañon, they turn to the right and close at the base of the cliff on the right stands Pulpit Rock (see illustration,) and the old stage ranche on the left, just where it appears that we must pitch off into the valley and river below.

This City is not very inviting unless you like to hunt and fish—when a stay of a few days—would be passed very pleasantly.

Chalk creek, Silver creek, Echo creek, and Weber river afford excellent trouting, while antelope are shot near the city. The mountains abound in bear, deer and elk.



PULPIT ROCK

Echo contains about 250 inhabitants, including those settlers near by and the railroad employees. Coal beds, extensive ones, are found near by, as well as an indefinite quantity of iron ore, which must possess a market value, sooner or later.

Near Echo City, across the Weber, a ravine leads up the mountain side, winding and turning around among the gray old crags, until it leads into a beautiful little dell, in the centre of which reposes a miniature lakelet, shut in on all sides by the hills. It is a charming, beautiful, tiny little gem, nestled amid a gray, grand setting of granite peaks and pine clad gorges—a speck of delicate etherealized beauty amid the strength and ruggedness of a coarser world.

WEBER CANYON.—To give a minute description of this remarkable place we cannot attempt, as it would fill a volume were its beauties fully delineated, and each point of interest noted. But as one of the grand and remarkable features of the road it demands a notice, however meagre, at our hands. For about 40 miles the river rushes foaming along, between two massive mountain walls, which close the landscape on either hand. Now, the torrent plunges over some mighty rock which has fallen from the towering cliff; anon, it whirls around in frantic struggles to escape from the boiling eddy, thence springing forward over a short, smooth rapid, only to repeat the plunge again and again, until it breaks forth into the plains, whence it glides away toward the lake, as though exhausted with its wild journey through the cañon.

In passing down the cañon, the traveler should closely watch, for fresh objects of wonder and interest will spring suddenly into sight on either hand.

From Echo City, the cars speed along the banks of the Weber for about four miles, when they enter the Narrows of Weber cañon, through which the road is cut for two miles, most of the way in the side of the steep mountain that drops its base in the river-bed. Shortly after entering the Narrows, the

ONE THOUSAND MILE TREE is passed—a thrifty branching pine—bearing on its trunk a sign-board that tells the western bound traveler that he has passed over 1,000 miles of railway from Omaha. This living milestone of nature's planting has long marked this place; long before the hardy Mormon passed down this wild gorge; long before the great trans-continental railroad was even thought of. It stood a lonely sentinel, when all around was desolation; when the lurking savage and wild beast claimed supremacy, and each in turn reposed in the shade of its waving arms. How changed the scene! The ceaseless bustle of an active, progressive age, the hum of labor, the roar and rush of the passing locomotive has usurped the old quiet, and henceforward the lone tree will be, not a guide to the gloomy past, but an index of the coming greatness of a regenerated country.

Just below this tree, the cars cross a trestle bridge to the left bank of the Weber, thence down but a short distance, before they cross over another trestle to the right hand side, and then, almost opposite the bridge, on the side of the mountain to the left, can be seen the

DEVIL'S SLIDE, or serrated rocks. This slide is composed of two ridges of granite rock, reaching from the river nearly to the summit of a sloping, grass-clad mountain. They are from 50 to 200 feet high, narrow slabs, standing on edge, as though forced out of the

mountain side. The two ridges run parallel with other—about 10 feet apart, the space between covered with grass, wild flowers and climbing (See illustration, page 53.)

Rushing swiftly along past

WEBER QUARRY—An unimportant side seven and a half miles from Echo City, we so sight of these rocks and behold others more of different shapes, and massive proportions. The tains seem to have been dovetailed together, and torn rudely asunder, leaving the rough promontory and rugged chasms, as so many obstacles to progress. But engineering skill has triumphed all. Where the road could not be built over or at these points, it is tunneled under. Now, we shoot the river, and dart through a tunnel 550 feet cut in solid rock, with heavy cuts and fills at either entrance. Just before entering this tunnel, high on the left, formerly stood "Finger Rock," as seen in illustration, (page 59,) but which has been taken away, so as not to be visible now. The frown in our further way, and again we cross the river, and burrow under the point of another promontory. Here the road stretches across a little valley, known as Round Valley.

Dashing along, with but a moment to spare in to note its beauties, we enter the narrowing gorge where the massive walls close in and crush out the green meadows. Between these lofty walls, with room for the track between them and the foaming river at our feet; on, around a jutting point, and we emerge into a lengthened widening of the valley, and we pause for a moment at

WEBER—Eight miles from Quarry. This station lies between two Mormon settlements, which, in connection, are called Morgan City. The buildings are mostly of logs and sun-dried bricks. The village



One Thousand Mile Tree.

separated by the river, which flows through the land, much of which is under cultivation for 10

The road follows down the right-hand bank of the river until just below

PETERSON—A small, unimportant station, about five miles from Weber, when it crosses to the left bank, which it follows for four miles further, between towering mountains, the valley now lost in the gloomy gorge, when suddenly the whistle shrieks the pass-word as we approach the

DEVIL'S GATE.—This is a mere side-track station, which soon after leaving, the brink of the torrent is neared, and the wild scenery of the Devil's Gate is before us. Onward toils the long train through a deep cut and across the bridge—50 feet above the seething cauldron of waters, where massive frowning rocks rear their crests far up toward the black and threatening clouds which hover over this witches' cauldron. With bated breath we gaze on this wild scene, and vainly try to analyze our feelings, in which we wonder, and admiration are blended. No time or thought, as to how or when this mighty work was accomplished; no time nor inclination to compare the work of nature with the puny work beneath us, but onward, with quickened speed, down the right-hand bank of the stream; on between these massive piles, worn and seamed in their ceaseless struggles against the destroying hand of time; on to where you opening light marks the open country; on, past towering mountain and toppling rock until we catch a view of the broad, sunlit plains, and from the last and blackest of the battresses which guard the entrance into Weber, we emerge to light and beauty, to catch the first view of the Great Salt Lake, to behold broad plains and well-cultivated fields which stretch their lines of waving green and golden shades beyond.

UTAH STATION.—We have now passed through the Wahsatch Mountains, and are fairly in the Great Salt Lake Valley. The elevation at this point is 4,560 feet, 2,319 feet lower than Wahsatch, 58 miles to the eastward.



BILL HICKMAN.

Near the station, on this broad bottom, in 1862, was the scene of the Morrisite massacre, related by Bill Hickman, in his confession, recently published, and which lays bare some of the most fearful crimes ever committed in the name of religion in this or any age of the world.

That such black-hearted villainy, such almost un-



THE DEVIL'S GATE.—Railroad in distance.

heard of atrocities could exist—that too in the nineteenth century—in the centre of the United States, in the name of religion, and by the direct orders of professed Christians, God-fearing ministers of the everlasting truth, is truly marvelous. In Hickman's confession, he says he killed all whom Brigham and his apostles ordered him to kill, through a conscientious and religious belief that he was doing right, and that Brigham was really the prophet of God, and could not do wrong. But the time came at last when he became convinced, beyond a shadow of doubt, that Brigham was not a true prophet, was not a Christian. He learned that several of those he had so cruelly murdered by Brigham's order were innocent of all crime. Then it was that the prick of conscience conquered the hero of a score of the most unprovoked murders ever committed, and the fearless desperado became an abject, self-accused murderer, to whom life was one continuous hell; hence the confession.

Here 500 men of Brigham Young's Mormon Legion, and 500 men who volunteered for the occasion, with five pieces of artillery, commanded by Robert T. Burton, attacked the "Morrisites," and after three days' skirmishing, and after a score or more had been killed, the Morrisites surrendered. The noble Burton, after the surrender, took possession of everything he could find in the name of the Church; shot down their leader, Joseph Morris—an apostate Mormon—whose only fault was that he claimed to be the true Prophet of God, instead of Brigham Young. This man Burton, at the same time shot and killed two women who dared to beg him to save the life of their Prophet.

The followers of Morris consisted of about 90 able-bodied men, mostly unarmed, and over 300 old men, women and children. The prisoners were all taken to Salt Lake City, and condemned, and those who were able to work had their legs ornamented with a ball and chain, and were put to picking stone to build the Mormon temple. On the 9th of March, 1863, these parties were all pardoned by Hon. S. S. Harding, who had that spring arrived in Utah as Governor of the Territory.

Leaving Unitah, the road winds around to the right and follows the base of the mountains, with the river on the left. The country is fertile and dotted with well-tilled farms. Eight miles from Unitah our train arrives at

OGDEN.—At present, May 1st, 1874, this is the junction of the Union and Central Pacific roads, but the legal junction is about six miles further west, as we shall explain hereafter. Distance from Omaha, 1,032 miles; from San Francisco, 882 miles; from Salt Lake City, 36 miles. Elevation 4,301 feet.

At this station the Union and Central Pacific Railroad Company have a union depot, large freight-houses, round-houses, machine and repair-shops, and employ a large number of men. It is a regular eating station, and a good restaurant is kept in the depot building, which is situated between the tracks.

OGDEN CITY is situated two miles from the depot, at the mouth of Ogden cañon; one of the gorges which pierce the Wahsatch range, and between the Weber and Ogden rivers. Population about 3,500.

The town is mostly Mormon, the schools and churches being under the control of the Church of the Latter Day Saints. It is the county-seat of Weber county, and will in time become a place of considerable importance, owing to the fact that it is the terminus of the Utah Central Railroad, and in close proximity to the junction of the Union and Central Pacific Railroads. The Mormons have a tabernacle here, and a semi-weekly newspaper, "*The Ogden Junction*."

The Wahsatch mountains rise some thousands of feet above the city, and the tourist would find much of interest in a stroll up the mountain side and along the cañons.

Ogden cañon is about five miles long, and from its mouth to its source, from plain to mountain top, the scenery is grand and imposing. About six miles from Ogden, up in the mountains behind the town, is a lovely little valley called "the basin," watered by mountain streams and covered with a luxuriant growth of grass.

Some excitement was created in the spring of 1871 by the reports of rich tin mines being discovered near the town, but so far nothing of any value has been developed.

Before proceeding further west, we will take a hasty view of Utah Territory, beginning with the

UTAH CENTRAL RAILROAD. It is 36 miles long, and is controlled and owned by the Mormon people. The depot is a few hundred yards north of the Union and Central depot buildings. The first ground was broken towards building the road—at Ogden, May 17th, 1869, and the enterprise was inaugurated with due ceremonies; President Brigham Young, and the chief dignitaries of the Mormon church being in attendance.

The road crosses the Weber River on a fine bridge, soon after leaving the station, and is built through a thickly settled and highly cultivated country, bordering the Great Salt Lake for over 20 miles, passing close to the thriving villages of Kaysville, Farmington, Center-ville and Bountiful. From the car window we get a view of the Lake, the waters of which are so exceedingly salt, that no living thing can exist therein. But in summer it is a most delightful place to bathe, the placid waters being warm, and so buoyant as to enable one to float on its surface with but little or no effort. Bathing in the lake is very invigorating and strengthening, and said to be very beneficial in chronic diseases. We shall speak of Salt Lake again at the summit of Promontory Point, where the finest view of these waters can be had. Within three miles of Salt Lake City, the road passes a small bay jutting out from

Hot Spring Lake, and thence to the city by easy grade, entering the town at its north-western extremity.

UTAH TERRITORY—Contains 65,000 square miles, which includes large tracts of wild mountainous and barren country. At present most of the lands under cultivation and the meadow lands are around the lakes and in the neighboring mountain valleys.

This area is very productive when irrigated; grains, fruits, and vegetables maturing readily, and yielding large returns. In the territory there are about 100,000 acres under cultivation, but the greater portion have to be irrigated in order to produce anything like a crop.

Rich veins of gold, silver, iron, and nearly all the metals found in the "Great West," exist in Utah, and it is the opinion of most men, had it not been for the "Councils" of Brigham Young to his followers, the Mormons, not to prospect for minerals, Utah might today be an honored State, in the great family of States, with a *developed mineral wealth*, second only to California, and possibly the first. The whole country within her borders would be illuminated with the perpetual fires of her "Smelting Furnaces," and resound with the thundering echo and re-echoes of the thousands of descending stamps grinding out the wealth which, since the completion of the Pacific railroad, and the consequent influx of "Gentiles" has been exported by millions and most effectually demonstrated the fact that Utah, if not the richest, is certainly next to the richest silver mining country in the world.

At this time, there are about 30 organized mining districts in the territory; the principal ones are: Big and Little Cottonwoods, Camp Floyd, Bingham, Ophir, East Cañon, Tintic, Snake Creek or Parley's Park, Dry Cañon, and the Star in the southern part of the territory.

In Little Cottonwood Cañon, 17 miles south-east of Salt Lake City, is located the "Emma," which is thought to be one of the richest argentiferous galena mines in the world. We have not the space to devote to a description of the mines were we able. They appear to be inexhaustible and very rich. For a very complete mining map of Utah, see page 69.

There are quite a number of smelting furnaces now in operation in various parts of the Territory and in Salt Lake City, besides more in progress of erection. Yet mining has hardly commenced in Utah.

Iron ore exists in large quantities in Iron and Summit Counties. In the former, iron works were erected in 1852. In June, 1868, the Union Iron Company erected two furnaces on the Pinto, in Iron County. We learn a company has been recently organized with a capital of \$2,000,000, to build a rolling mill at Provo, 50 miles south of Salt Lake City.

Coal mines abound in various parts of the Territory, but the principal mines now worked are at Coalville, in Summit County and in San Pete. The latter yields a good quality of blacksmith coal, in large quantities.

Copper, lead, bismuth, and lime stone are also found in quantities.

Utah was first settled in 1847. On the 24th of July, the advance guard of the Mormon emigration numbering 143 men, entered Salt Lake valley; five days later 150 more men arrived under Captain Brown, and on July 31st, Great Salt Lake City was laid out.

On the 9th of March, 1849, the first election was held under the provincial government of the State of Deseret, by which name the Territory was then known. Brigham Young was elected Governor. An application had been made to Congress for a State Government immediately previous to holding the election. What number of people were then residents of the Territory does not appear. Present population, about 130,000.

RAILROADS.—The Utah southern railroad is really an extension of the Utah Central, which runs from Ogden to Salt Lake City. It is completed south from the latter city to Provo—50 miles. The narrow gauge system has already made considerable progress in the Territory. The lines are: the Utah Northern from near Brigham city—runs north 70 miles; the American Fork, from Lehi up to American Fork cañon—18 miles; Wahsatch and Jordan, from Sandy station on the Utah Southern, to Granite—8 miles (projected to Alta—9 miles further); Summit County road, from Echo city to Coalville—7 miles; Bingham Cañon, from Sandy station to Bingham city—18 miles (not done, graded April, 1874). Other narrow gauge roads are projected, leading to almost every mining town in the Territory. Most of these roads will connect with Utah Southern, which is being extended southward. Stages connect with the railroad lines for almost every town and camp.

SALT LAKE CITY.—This is one of the most beautiful and pleasantly located of cities. It is situated at the foot of a spur of the Wahsatch Mountains, [see illustration,] the northern limits, extending on to the "bench" or upland, which unites the plain with the mountain. From the east two wagon roads enter the city, via Emigrant and Parley cañons.

The streets are wide, bordered with shade-trees, and laid out at right angles, (see map of the city.) Along each side of the streets is a clear, cold stream of water from the mountain cañons, which, with the numerous shade-trees and gardens, gives the city an indescribable air of coolness, comfort, and repose. The city contains a population, according to the census of 1870, of 12,454; now about 18,000.

The principal material used in building the city was stone and "adobes" (sun-dried brick), hence it presents the appearance of a Spanish town in that respect.

The traveler who visited this city some years ago—before the discovery of the rich silver mines—would be surprised by a visit now at the remarkable changes noticeable on every hand; all is life and energy; everybody seems to have a pocketful of certificates of mining property, and you hear of extensive preparations making on every side with a view to an extensive prosecution of various mining enterprises. The public buildings are not very numerous. They consist of a court-house, city hall, city prison, theatre, and

THE TABERNACLE—an immense building, is the first object one beholds on entering the city. The building is oblong in shape, having a length of 250 feet from east to west, by 150 in width. The roof is supported by 46 columns of cut sand-stone, which, with the spaces between used for doors, windows, etc., constitute the wall. From these pillars or walls, the roof springs in one unbroken arch, forming the largest self-sustaining roof on the continent, with one notable exception—the Grand Union Depot recently erected by Commodore Vanderbilt in New York. The ceiling of the roof is 65 feet above the floor. In one end of this egg-shaped building is the organ—the second in size in America. The Tabernacle is used for church purposes, as well as for other large gatherings of the people. With the gallery, which extends across both sides and one end of

this immense building, it will seat 8,000 people. (See illustration page 63).

THE TEMPLE.—This building—a fine illustration of which will be found on page 65, is not yet completed, in fact, the foundation is only laid. The dimensions of the foundations are 99x186½ feet. The site of the Temple is on the eastern half of the same block with the Tabernacle.

Since the advent of railroads into Utah, and the discovery of the rich mines, church property has not accumulated very rapidly.

Within the past few years nearly all the religious denominations have secured a foothold in this city.

The Old Fellows and Masons each have a lodge here.

Free schools are not numerous in Salt Lake City.

There are three daily newspapers published in the city, each of which issue weeklies. We name them according to age. The *Deseret News* is the Church



SALT LAKE CITY,—Wahsatch Mountains in the distance.

organ, and very zealous in support of the "peculiar ideas" taught by the Mormon Church; the *Salt Lake Herald*, daily and weekly, claiming to be a "live paper for live people, free and independent," yet a good Mormon. At the time we write, the only daily "Gentile" paper published here is the *Tribune*.

Newspaper business is very precarious in Utah. It's as fine an opening for a young man to get his "teeth cut," as we know of in the world—he can soon get a double and single set all around.

Horse-cars leave the Utah Central Depot, running through the main business streets, past all the principal hotels.

Of the hotels we cannot boast; but a new one is building, and it is to be hoped that those who are to manage it will consider it necessary to provide accommodations that will approximate the value of *five per cent.* of the amount of the bill charged.

The Townsend, Valley, and Salt Lake houses are the best kept, but the Walker is the finest architecturally.

The scenery surrounding Salt Lake City is bold and impressive. The lofty range of the Wahsatch forms the back ground, lifting its rugged peaks above the clouds. Piles of snow can be seen in the gorges where the warm sunlight has not the power to melt it. Though the mountain peaks are bare in summer, these narrow defiles and deep chasms retain their icy treasures, as though they feared the advent of life, warmth and vegetation. There is an abundance of pine, maple, oak, etc., in the hills, but it is difficult of access.



The above cut represents the Mormon "Co-operative Sign"—called by the Gentiles the "Bull's Eye." At the Mormon Conference, in the fall of 1868, all good Mormon merchants, manufacturers and dealers who desired the patronage of the Mormon people, were directed to place this sign upon their buildings in a conspicuous place, that it might indicate to the people that they were sound in the faith.

The Mormon people were also directed and warned not to purchase goods or in any manner deal with those who refused or did not have the sign. The object seemed to be only to deal with their own people, to the exclusion of all others.

The result of these measures on the part of the church was to force many who were Gentiles or Apostate Mormons to sacrifice their goods, and leave the Territory for want of patronage. However, the order was not very strictly enforced—or complied with; yet many of these signs are to be seen in Salt Lake City and other parts of the Territory on the buildings occupied by the faithful.

HOT SPRINGS.—One mile north of the city are the celebrated warm springs, where the city baths are situated. These are the disputed springs, to obtain possession of which, it is supposed by many, Dr. Robinson was murdered. The baths are well patronized by invalids, who visit them for health, relying on their medicinal qualities to remove their ailments. The following is an analysis of the water, as made by Dr. Charles T. Jackson, of Boston:

Three fluid ounces of the water on evaporation to entire dryness in a platina capsule gave 8.25 grains of solid, dry, saline matter.

Carbonate of lime and magnesia.....	0.240	1.280
Peroxide of iron.....	0.040	0.208
Lime.....	0.545	2.907
Chlorine.....	3.454	18.421
Soda.....	2.877	15.348
Magnesia.....	0.370	2.073
Sulphuric acid.....	0.703	3.748

8.229 43.981

It is slightly charged with hydro sulphuric acid gas and with carbonic acid gas, and is a pleasant saline mineral water, having valuable properties belonging to saline sulphur springs. The usual temperature is 102 degrees F.

Two miles further are the Hot Springs, said to be similar in quality to those named, but much warmer and of a larger volume of water. The spring boils out at the foot of a rock—where a sloping spur of the mountain strikes the plain—in a very large volume, forming a creek several feet in width, with a depth of six inches, and it is very hot. There is no nonsense about this

spring; it will boil an egg in four minutes. Close by, lying to the westward, is a charming little lake about three miles long and somewhat over a mile in width. It is formed from the waters of these springs, and is called "Hot Spring Lake." It is bordered on one side with trees, which give the place a very pleasant appearance in the summer. In the winter, when a portion of the lake is frozen over, it is a favorite resort for skating parties.

JORDAN RIVER.—This stream, which borders Salt Lake City on the west, is the outlet of Utah Lake, which lies about forty miles south. It empties into the Great Salt Lake, about twelve miles northwest of the city. The time is not far distant when, according to some modern prophets, the cars will roll along down the banks of Utah Lake on their way to the City of Mexico, Panama, South America, and Cape Horn.

CAMP DOUGLAS, a military post, established October 26, 1862, by Gen. E. P. Conner, Third Regiment of California Volunteer Infantry, is situated on the east side of the Jordan, four miles from that stream, three miles east of the city of Salt Lake, and fifteen miles southeast of Salt Lake. Latitude, 40 deg. 46 min. 02 sec.; longitude, 111 deg. 53 min., 34 sec. Its location is on a sloping upland or bench at the base of the mountains and overlooking the city, and affords a fine view of the country to the west and south.



BRIGHAM YOUNG.

President and Prophet of the Mormon Church, or "Church of the Latter Day Saints," stands prominently forward as one of the most remarkable men of the nineteenth century. He was born in Whittingham, Windham county, Vermont, on the first day of June, 1801. His father, John Young, was a revolutionary veteran, and served in three campaigns under Washington. The family consisted of six daughters and five sons, of whom Brigham was the fourth. In early life he was connected with the Methodists, and at this time he followed the occupation of carpenter and joiner, painter and glazier. He was first married in 1824, and in the spring of 1830 first saw the "Book of Mormon," of which he afterwards became so firm a believer and prominent supporter. In April, 1832, he was baptized a member of the "Church of

Jesus Christ of Latter Day Saints." During the previous year he had visited Columbia, Pennsylvania, where there was a branch of the church, making a lengthy stay—that he might become better acquainted with its principles. This is characteristic of President Young, who makes up his mind only after mature deliberation, and then he is very firm, holding to his opinion or belief with great tenacity.

In the following September his wife died, and he started for Kirtland, Ohio, to see Joseph Smith, the Mormon prophet. The meeting of these two men—the founder of the church, the other destined to become his powerful successor as its leader—took place in the woods near Kirtland, where the prophet had gone to chop wood, and whither Mr. Young followed to make his acquaintance. A few evenings after this first meeting, it is recorded that Joseph Smith publicly said that the time would come when Brigham Young would rule over the church. From this time Mr. Young became a zealous and successful advocate of Mormonism. Early in 1835 he was ordained one of the Twelve Apostles of the Mormon Church, on the organization of that quorum; and subsequently became president of the twelve, through the defection of Thos. B. Marsh, who was his senior in years, and, for that reason, previously held that office.

As one of the apostles Mr. Young filled several missions, traveling extensively through the Eastern States, preaching, proselyting, building up and regulating branches of the church, etc. On the 9th of March, 1840, in company with H. C. Kimball, his late first counselor in the presidency of the church, Geo. A. Smith, his present first counselor, and other missionaries, he sailed from New York on a mission to Great Britain, and arrived in Liverpool April 6th. He spent a little over fourteen months in England, during which time several thousand persons were converted, and the publication of the *Milennial Star*, the first foreign Mormon publication, was commenced. It was issued as a serial, and has been continued in that form, and issued regularly from that time until the present.

On his return from England he filled other missions, traveling and preaching in the East, his family remaining in Nauvoo. He was absent from that city when Joseph Smith and his brother Hiram were mur-

dered in Carthage. He immediately returned to Nauvoo, with other prominent members of the church, and proceeded to take such measures as were deemed best for the protection of the citizens of Nauvoo and the Mormons in the neighborhood, who were hourly threatened with extermination.

Early in 1846 it became imperative to vacate Nauvoo, and Mr. Young directed the fleeing thousands of the Mormon church in their westward journey, himself and many others of the organization leaving, for the fifth time, to seek a new home. The bulk of the Mormons made their way to the Missouri river, through the then wild, unsettled country, now forming the State of Iowa, and remained temporarily located during the years of 1846 and 1847 at Council Bluffs.

In 1847 Mr. Young led a band of pioneers westward, toward the Rocky Mountains, and on the 24th of July of the same year arrived in the valley of the Great Salt Lake, where a settlement was immediately formed.

In the fall of 1847 he returned to the Missouri, and in the spring of 1848, after having been accepted as President of the Church, he organized a large company of his people and proceeded with them to the new settlement in Salt Lake Valley.

There being no organized government in the territory where they settled—which then belonged to Mexico—the people formed a provisional State, with the title of Deseret, of which Mr. Young was unanimously elected Governor, which position he held for nearly three years, until the Government of the United States—to whom the country had been ceded by treaty—extended its laws over it, and a Territorial government was provided by act of Congress. This occurred in October, 1850, and Mr. Young was appointed Governor of Utah, as the Territory was then called, and continued to rule it until 1857.

President Young has taken a prominent part in all public improvements, in every plan calculated to facilitate communication between the Territory and the Eastern States; materially assisting in forming several express companies and stage lines. He built several hundred miles of the Western Union telegraph, graded 150 miles of the Union Pacific railroad, and has ever offered his assistance to every enterprise of the kind which had a material bearing on the interests of Utah. He was also the principal mover in the construction of

the Deseret Telegraph line, which connects the northern and southern settlements of Utah, nearly 500 miles apart. He used every effort to push forward to an early completion the Utah Central railroad, of which he was the first president. His great influence over his people was strongly illustrated by the promptness with which they responded to his call to build the grade on the Union Pacific railroad; men, teams, etc., coming from all parts of the Territory. Nearly every settlement sent its quota to help in finishing the work.

Such is a brief, reliable sketch of the life of Brigham Young. We now take leave of him and his people, and while returning to Ogden will write concerning the projectors and builders of the Central Pacific railroad.



BRIGHAM YOUNG'S RESIDENCE.

VIRTUE and honor are very nice for Sunday wear, but too rare for every-day use.



HON. LELAND STANFORD.

Ex-Governor Leland Stanford, President of the Central Pacific Railroad of California, was born in the town of Watervliet, Albany county, N. Y., March 9, 1824. His ancestors were English, who settled in the Valley of the Mohawk about the beginning of the last century. Josiah Stanford, father of Leland, was a farmer and prominent citizen of the county, whose family consisted of seven sons—Leland being the fourth—and one daughter. Until the age of twenty, Leland's time was passed at study and on the farm. He then commenced the study of law, and in 1845 entered the law office of Wheaton, Doolittle & Hudley, in Albany, N. Y. In 1849 he moved West, and commenced the practice of law at Port Washington, Wisconsin. Here, in June, 1850, he was married to Miss Jane Lathrop. In 1852 we find him following many of his friends to the new El Dorado. He landed in California July 12, 1852, proceeded directly to the mines, and settled at Michigan Bluffs, on the American River, Placer county, and in a few years he had not only realized a fortune, but so far won the confidence of the people as to secure the nomination for State Treasurer, in 1859, on the Republican ticket. At this time the Democratic party had never been beaten, and the canvass was made on principle. He was defeated; but in 1861—a split-up in the ranks of the dominant party having taken place—he was nominated for Governor, and elected by a plurality of 23,000 votes. How he performed the trust is well known. Suffice it to say, he received the thanks of the Legislature and won the approval of all classes. Governor Stanford early moved in the interest of the Pacific railroad; and on the 22d of February, 1863, while Sacramento was still staggering under the devastating flood, and all was gloomy in the future, with the whole country rent by civil war, he—all hope, all life and energy—shoveled

the first earth, and May 10, 1869, drove the last spike at Promontory, Utah, which completed the Great Pacific Railroad across the American continent.

THE CENTRAL PACIFIC RAILROAD.

The history of the great trans-continental railroad is familiar to all Americans, who have watched its progress from the time when the first shovel-ful of dirt was lifted in its construction until its final completion. Yet each portion—the west as well as the east—has a bit of history attached to it, in which the people of that locality take especial pride. Without tiring our readers with a long array of figures, we propose to give a brief sketch of the Central Pacific Railroad, and in this connection we assert that the Golden State, by her representative, was really the moving power which brought this mighty project before the nation, secured its aid, and by that means assured its rapid completion. For some years previous to the time when the final act was passed by Congress—which was to provide those of the western coast with speedy and safe communication with the homes of their youth—the question of the grand trunk road had been discussed by Californians as a great public necessity. Many self-reliant men were sanguine of success, could the project be rightly brought before Congress. This feeling grew among the people of California, until a man who sought office at the hands of the people could not be elected were he not a "railroad man," provided that office was one wherein the holder could injure the prospects of the proposed road. Through the counties where the line was supposed to run the question was strongly agitated, for those counties were expected to assist the undertaking, by voting their credit in various sums. So eager were the people of the interior of the State to have the enterprise commenced and completed that they were willing to accede to any terms which would insure the success of the enterprise and relieve them from the oppression of a powerful water monopoly, which controlled the main line of travel to the East.

The members of Congress from California knew that their election was in part owing to this feeling, and that much was expected of them by their constituents. They failed not when the time arrived; but to one—A. A. Sargent—more than all others, is California indebted for the great work which now binds her to her Eastern sisters.

But we are proceeding too fast, overlooking, but not forgetting, another name, none the less honored because the bearer lived not to behold the final completion of the work he initiated and so earnestly advocated. Theodore D. Judah, who now sleeps the sleep that knows no waking, but still his presence can be seen and felt in every mile of the grand road which his genius brought into being. His name is a household word in the West, for thousands new and appreciated the manly spirit and genial mind of the earnest, persistent and sanguine Engineer.

In the then little hamlet of Sacramento dwelt C. P. Huntington, "Charley" Crocker, Mark Hopkins, and a few others—warm personal friends of Judah—who often, in the long winter evenings, gathered around the stove in Huntington & Hopkins's store room, and there discussed the merits and demerits of the Judah theory. These and some other gentlemen became convinced that the engineer was right—that the scheme was practicable. They subscribed \$50 apiece, and, in the summer, Judah and his assistants made a careful

survey of the passes in the Sierras. This was in the summer of 1860, and in the fall the engineer party returned, toil-worn and travel-stained, but vastly encouraged and elated with the result of their summer's work. So favorable was the result that \$1,500 was immediately raised to be used the following summer in the same manner. The summer of 1861 found Judah and his party in the gulches and defiles of the Sierras, earnestly prosecuting their labors. The result confirmed the previous report, with, if possible, more encouraging details regarding country, cost, etc.

Judah then visited many of the principal capitalists of San Francisco to obtain subscriptions for the work, but failed to obtain a dollar. "But this road—what was it? Nothing that concerned them. It did not represent capital. A poor engineer wanted to make some money, and had started the idea for that purpose. What can they do," said these men, sneeringly, "even with their charter from the State? They have no money—they are poor men. It's only a sharp dodge on their part. They think the road will be undertaken in time, and when that time arrives they will stand a chance to sell their charter and realize a few thousands—that's all. But they'll die before that time comes. Yes, they'll be dead before a railroad will be built across the continent." Such was the general tone of conversation among moneyed men regarding the road in its infancy; and it cannot be denied that the people of California owe nothing to the capitalists of their State—not even their thanks—for aid in the earliest days of the enterprise. The bone and sinew of the people—the mechanic and the merchant, the farmer, labor and miner—did all that could be expected of them. But the capitalists held back—and for good reason. They feared that the railroad would give the death-blow to the monopolies in which they were more or less interested. Sacramento alone deserves the credit of having originated and brought to a successful completion the Central Pacific Railroad. When the State had chartered the company, when only funds were necessary to insure the completion of the work, only two subscriptions were obtained in San Francisco, and one of these came from a woman.

In 1862 Judah went to Washington with charts, maps, etc., of the road. Sargent was there, as enthusiastic in the support of the measure as Judah himself. He drew up the bill under which the road was built. James H. Campbell, of Pennsylvania, and Schuyler Colfax were his most efficient supporters in the House. In the Senate, McDougal, of California, Wilson, of Massachusetts, and Morrill, of Maine, also stood manfully by the measure. And there was fought the great battle. Their enlightened ideas, aided by young and vigorous intellects, met and conquered prejudice and moneyed opposition, and opened a new commercial era in the annals of the Union. But it was not accomplished without a long and wearying struggle, in which the bull-dog tenacity and fierce grip of Sargent was manifested. Day after day, for weary weeks, in the Committee of the Whole, Campbell and Sargent stood up alternately, and answered objections as fast as made, in short, sharp, close and cutting speeches. And night after night they held interviews with Eastern Senators and Representatives; while at their side, supplying them with information on all desired points, sat Theodore D. Judah, the engineer, earnest and hopeful to the last. Senators did not nor would not believe that the road could or would be built. Said Lovejoy, during one of the debates: "Do I understand the gentleman from California to say that he actually expects this road to be built?" "The gentleman from Illinois may understand me to predict that

if this bill is passed the road will be finished within ten years," responded Sargent. People can now judge between Lovejoy's and Sargent's ideas of the vigor of the West.

The end came; the bill was finally passed; and the news thereof caused the hearts of Californians to leap for joy. Ground was broken at Sacramento, and work commenced immediately. Another battle was to be fought, a financial one. Before they could receive any aid from Government forty miles of road must be built and stocked, which would cost at least \$4,000,000—for that forty miles carried the road far up among the Sierras, through a great portion of their heavy work. Money was "tight"—in fact it always is when a man wants some—commanding two per cent per month in California. The corporators put in their "bottom dollar;" the city of San Francisco issued bonds in assistance of the work; the State and several counties also rendered material aid; but all combined was but a trifle compared to what was required. C. P. Huntington, now Vice-President of the road, went to New York for aid, but among the capitalists there he met the same answer that had been given to Judah by the moneyed men of San Francisco. Finally he met with Fisk & Hatch, dealers in Government stocks. They feared not the result of the scheme. These energetic capitals, with the promptness of young and active minds—while older capitalists were questioning whether there was really a serious intention of building the road—pledged their faith to furnish the company with what money they required and when they required it. The sum ranged from \$5,000,000 to \$20,000,000 per year; but they failed not—the money was always ready. The success of the enterprise was now assured. The bonds of the company were put on the market, and advanced rapidly in price, and soon the company had at their command all needful funds.

When the summit of the Sierras was reached, the road was pushed rapidly forward. But long ere this was gained, when the company was toiling among the mountains, jeers and taunts of derision filled the columns of San Francisco newspapers. "The Dutch Flat Swindle," as the road was termed by some of these far-sighted journalists—when the company were laboring to overcome the heavy grade near that town—has passed into a by-word in California, and now is suggestive of success. The route, after the "summit" was gained, was then comparatively easy, and rapid progress was made. The Chinese laborers, who had worked on the road from first to last, drove the work forward, and on May 10 the roads met on Promontory Point, 690 miles from Sacramento. The following will show the number of miles completed during each year: In 1863, '64 and '65, 20 miles each year; in 1866, 30 miles; in 1867, 46 miles; in 1868, 364 miles; in 1869, 191 miles.

By act of Congress the point of junction of the Union and Central Pacific railroad companies is located northwest of Ogden station, within the limits of section 36, of township 7, of range 2, situate north and west of the principal meridian and base line in the Territory of Utah, and the said companies are hereby authorized to enter upon, use, and possess sections 25, 26 and 35 of township 7.

At Ogden passengers are allowed one hour to eat, change cars, check their baggage and secure seats or berths in the elegant silver palace sleeping-coaches of the Central Pacific.

On the plains, bacon is called "sow-belly." In Indian tents, "wigwams," lodges, "tepees," "waukeups."

On the plains for the Tourist come as the wind comes when forests are rent; come as the waves come when navies are stranded.



WAHSATCH HOTEL.

UNION JUNCTION—Is a station only in name, six miles west of Ogden. The companies propose to jointly erect at this "junction" ample permanent buildings to accommodate their own interests, as well as a magnificent building to be called the

WAHSATCH HOTEL.

It is designed to construct this hotel with a special view to afford tourists a resting-place—a home, where they can stop over for a time, and be surrounded by all the luxuries, comforts and conveniences to be found at any hotel on the continent. The building will be supplied with all the modern improvements, with hot and cold water from springs in the foot-hills close by, which are situated at an elevation sufficient to carry the water to the top story of the building. The fountains in the parks surrounding the house will be supplied with water from a similar source. The mineral springs, lake bathing, dry and invigorating atmosphere, delightful scenery, superior hunting and trout fishing of the vicinity, combined with the comforts and luxuries of a first-class hotel, will, we are certain, attract a host of invalids and pleasure-seekers.

Above we present a beautiful view of the hotel as it will appear when completed, which we had engraved expressly for the Tourist, from the original drawing by C. R. Linde, Esq., of the U. P. R. R. at Omaha.

This hotel will be constructed of fine sandstone, something after the Mansard style of architecture, 198 feet front, 172 feet in depth. The centre of the building will be nearly square, with a wing on each side and one in the rear. The centre part will be 99 feet front, by 82 in depth, and five stories high, including the basement, which is mostly above ground. The wings are four stories high. The first floor contains a large vestibule (in the centre of which start the stairs); a corridor 8 feet wide runs from one end of the building to the other, and which will open upon verandas

all along the front of the house and also the parlor. The ladies and gentlemen each have a parlor 24 feet 1 inches x 17 feet 6 inches, and a sitting-room 24 feet 1 inches x 18 feet 9 inches; the dining-room is 87 feet 68 feet. The hotel, when completed, will contain about 125 rooms for guests. One great feature of the building will be the observatory on the top, 10 feet above ground, which will afford a fine view of Salt Lake and the Oquirrh Range on the south, Promontory Point and Bear River on the west, while to the east and north rise the Wahsatch mountains—in some places snow-capped—extending as far as the eye can reach. Elevation, 4,310 feet.

Near the hotel at the foot of a spur of the mountain is one of the many.

HOT SPRINGS

which abound in the Great Salt Lake and Nevada basins. The springs in cold weather send up a dense cloud of vapor, which is visible for a long distance. They are strongly impregnated with sulphur and other mineral substances. The odor arising from them is very strong, and by no means pleasant for some people to inhale.

From the cars an occasional glimpse of Salt Lake can be obtained with its numerous islands, lifting the peaks far above the briny waters. The views will be very imperfect; but as we near Promontory Point, and after leaving that place, excellent views can be obtained.

BONNEVILLE—Is an unimportant station, twelve miles further west. Near the station we pass through fine farming lands, which yield large crops of wheat, barley and corn. With the rugged mountains on our right, and the waters of the lake seen at times on our left, we find objects of interest continually rising around us. Far up the sides of the mountain, stretching along in an unbroken line, save where it is sundered by canyons

alchea, and ravines, is the old water-mark of the ancient lake, showing that at one time this lake was a mighty sea, washing the mountain sides several hundred feet above us. The old water line is no creation of the imagination, but a broad bench, whereupon the sil-worn rocks, the rounded pebbles, and marine shells all attest the fact that once the waters of the lake washed this broad upland. Beneath the highest and greatest bench, at various places, may be seen two others, about equal distances apart, showing that the waters of the lake have had three different altitudes before they reached their present level.

Near this station the first spike on the Utah Northern R.—a narrow gauge—was driven March 25, 1872, since which time the work has been prosecuted vigorously. It is designed to extend the road east to Ogden, and north into Idaho and Montana Territories. It is nearly completed about 70 miles north, and trains are running regularly. Passing on to the right beside the mountain is located

WILLARD CITY,

a Mormon town of 552 inhabitants. The mountains near this town present indications which would assure the "prospector" that they were rich in various minerals. Strong evidences also exist of the great volcanic upheaval which once lit up this country with its lurid fires, most effectually demolishing many philosophical theories, leaving their originators to study nature more and books less.

Near the city, in the first range of hills, is the crater of an extinct volcano, which covers several acres. The masses of lava lying around—its bleak, barren, and desolate appearance—would seem to indicate that not many years had elapsed since it was in active operation.

But a few miles further on we pass

BRIGHAM CITY,

which, like the preceding one, is nestling close to the base of the mountain on our right. Population, 1,315. Like Willard City, it is a Mormon town, embowered in fruit trees. The buildings are mostly of adobe. A thriving trade and rapidly increasing population attest the importance of the place. The public buildings include a court-house and tabernacle, two hotels, and no saloons.

Passing Brigham City, we incline to the left and cross Bear River on a trestle bridge 1,200 feet long, the piles of which were driven in water 18 feet deep.

CORINNE—One half mile beyond the bridge, contains about 1,000 inhabitants, and, at present, is the centre of an extensive trade. It has an elevation of 4,294 feet. Distance from Omaha, 1,056 miles; from San Francisco, 858 miles.

The advantages possessed by Corinne cannot fail to render the place one of importance in time. Around the town are many thousand acres of land, which only require irrigation and culture to render them productive in the highest degree. To provide the necessary water, a company has been organized for the purpose of building a canal from a point on Bear River—about 20 miles to the northward—which will, when completed, not only supply ample water for irrigation and manufacturing purposes but for use by the citizens of Corinne.

For several years past a small steamer—City of Corinne—has navigated Salt Lake, running between Corinne and Stockton, to the South, distance 80 miles, but it has been discontinued.

The eastern terminus of the Portland Dalles and Salt Lake Railroad has been located at Corinne.

A branch of the Utah Northern connects at Corinne with the Pacific road, over which passengers for East-

ern Idaho and Montana go to points on the Northern, where connections are made by stage lines, carrying passengers, mails and express.

From Corinne it is 358 miles to Virginia City, 482 to Helena, and 600 to Fort Benton, Daily Stages. The country traversed is very diversified, mountain and valley, hill and glen alternating, rendering the route attractive to the lovers of scenery. Malad and other valleys along the road are fertile and well watered, where many Mormon settlements will be found, surrounded by flourishing farms.

MONTANA TERRITORY—Lies to the north of Utah, and is generally considered solely as a mining country. Although at one time Montana possessed excellent placer gold mines and "gulch diggings," they have mostly been worked out, yet there are some camps where good pay is being taken out. The mining is now mostly confined to quartz, some of which yield rich returns.

Although many and rich mines of gold have been discovered within her borders, the importance of her agricultural resources are not to be ignored. The valleys of the Missouri, Madison, Gallatin, Yellowstone, and many other rivers, possess the very best of farming and grazing lands in quantities sufficient to support a large population. In the mines enterprise and capital have, and will continue to develop great wealth, but here, as in other mining countries, expensive machinery must be erected and a large capital invested before the mines can be developed and worked with profit, while to the agriculturist and stock grower Montana presents—with a continually increasing home market—inducements to the poor emigrant second to no section of the United States. The people of the Territory are energetic and persevering, with full faith in the future of their Territory, and will, in time, render it what they contend it really is, one of the wealthiest sections of the Union.

HELENA is the largest city in Montana, and contains, according to the census of 1870, 3,106 inhabitants. It has suffered fearfully in the past by fires, which has several times completely destroyed the business portions of the city, but the energy and enterprise of her people soon re-built with substantial materials—brick and stone. The *Herald* and *Gazette*, both daily and weekly newspapers are published here. The chief occupation of the people is quartz mining.

VIRGINIA CITY, the capital of Montana, contains a population of 876. The *Montanian*, a weekly is published here. It is one of the most spicy papers in the far west.

DEER LODGE CITY is the third in point of population in the Territory. It contains 788 inhabitants, and has two weekly papers—the *New North West* and the *Independent*.

BOZEMAN is another thriving town, and the *Arctic Courier* its representative newspaper.

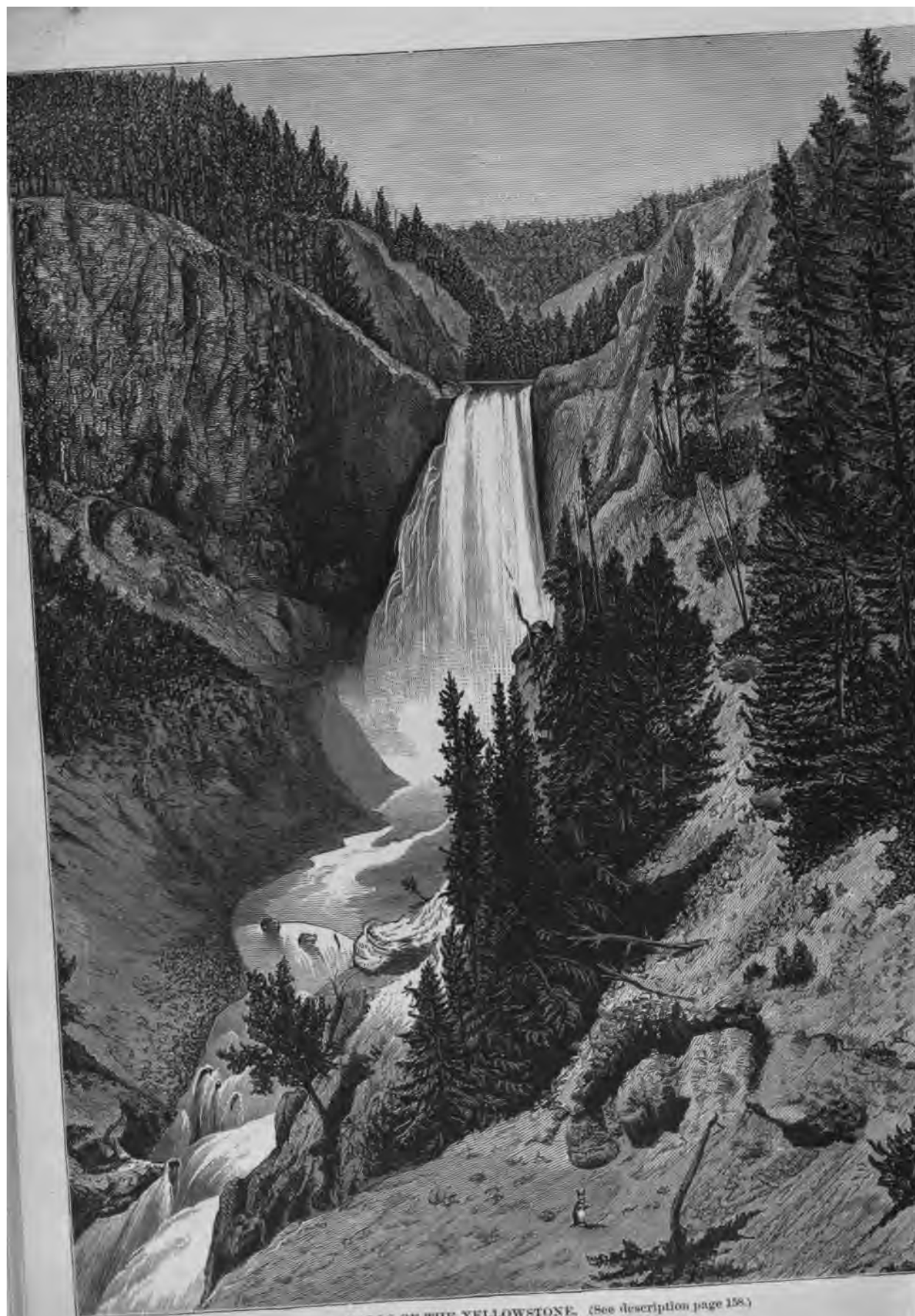
It would seem, from recent discoveries, that Montana and a portion of Wyoming Territories contain the

GREATEST WONDER IN THE WORLD.

The explorations of Dr. Hayden, United States Geologist, have demonstrated that *this, our own country*, contains natural wonders, which, in extent, grandeur, and wondrous beauty, far surpass those of any other portion of the known world. The result has been, a bill has passed Congress setting apart a tract of country 55 by 65 miles in extent as a

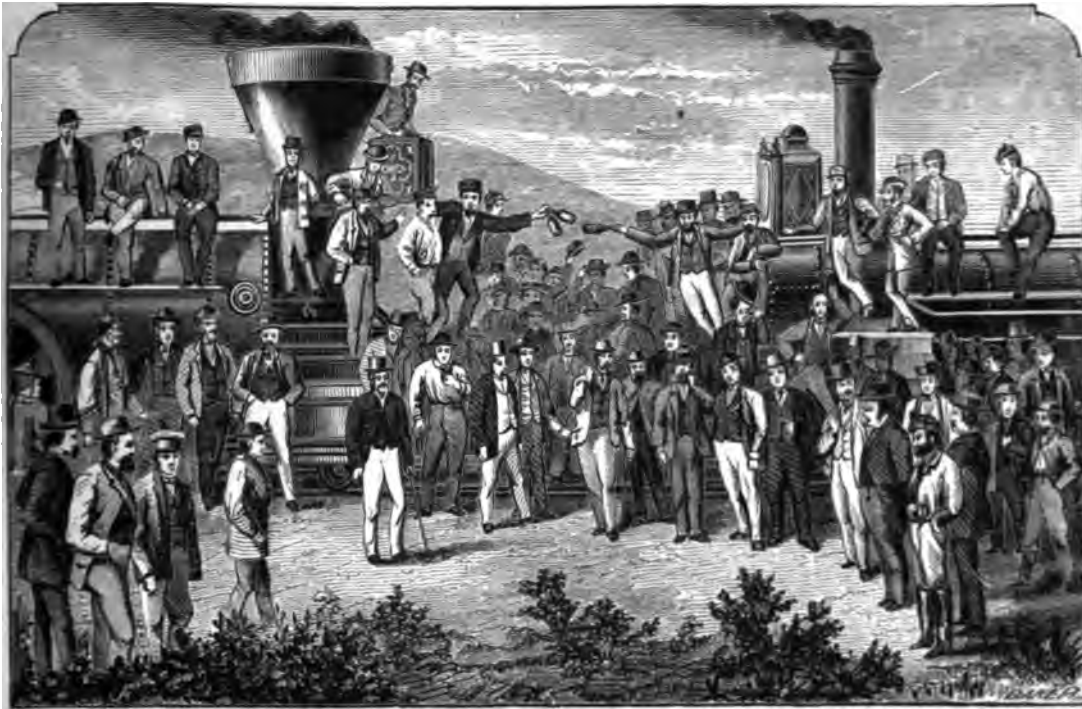
GREAT NATIONAL PARK,

or mammoth pleasure-ground, for the benefit and enjoyment of the people. The entire area within the



FALLS OF THE YELLOWSTONE. (See description page 158.)





THE EAST AND THE WEST.

THE ORIENT AND THE OCCIDENT SHAKING HANDS AFTER DRIVING THE LAST SPIKE.

THE LAST SPIKE.

On Monday, the 10th of May, 1869, a large party was congregated on Promontory Point, Utah Territory, gathered from the four quarters of the Union, and, we might say from the four quarters of the earth. There were men from the pine-clad hills of Maine, the rock-bound coast of Massachusetts, the everglades of Florida, the golden shores of the Pacific slope, from China, Europe, and the wilds of the American continent. There were the lines of blue-clad boys, with their burnished muskets and glistening bayonets, and over all, in the bright May sun, floated the glorious old stars and stripes, an emblem of unity, power and prosperity. They are grave, earnest men, most of them, who are gathered here; men who would not leave their homes and business and traverse half or two thirds of the continent only on the most urgent necessity, or on an occasion of great national importance, such as they might never hope to behold again. It was to witness such an event, to be present at the consummation of one of the grandest of modern enterprises, that they had gathered here. They were here to do honor to the occasion when 1,774 miles of railroad should be united, binding in one unbroken chain the East and the West. (Sacramento at that time was the western terminus.)

To witness this grand event—to be partakers in the glorious act—this assemblage had convened. All around was excitement and bustle that morning; men hurrying to and fro, grasping their neighbor's hands in hearty greeting, as they paused to ask or answer hurried questions. This is the day of final triumph of the friends of the road over their croaking opponents, for long ere

the sun shall kiss the western summits of the gray old monarchs of the desert, the work will be accomplished, the assemblage dispersed, and quiet reign once more, broken only by the hoarse scream of the locomotive; and when the lengthening mountain shadows shall sweep across the plain, flecked and mottled with the departing sunbeams, they will fall on the iron rails which will stretch away in one unbroken line from the Sacramento to the Missouri river.

The hours passed slowly on until the sun rode high in the zenith, his glittering rays falling directly down upon the vacant place between the two roads, which was waiting to receive the last tie and rails which would unite them forever. On either road stood long lines of cars, the impatient locomotive occasionally snorting out their cheering notes, as though they understood what was going on, and rejoiced in common with the excited assemblage.

To give effect to the proceedings, arrangements had been made by which the large cities of the Union should be notified of the exact minute and second when the road should be finished. Telegraphic communications were organized with the principal cities of the east and west, and at the designated hour the lines were put in connection, and all other business suspended. In San Francisco the wires were connected with the fire-alarm in the tower, where the ponderous bell could spread the news over the city the instant the event occurred. Baltimore, Philadelphia, Boston, New York, Cincinnati and Chicago were waiting for the moment to arrive when the chained lightning should be loosed, carrying the news of a great civil victory over the length and breadth of the land.

The hour and minute designated arrived, and Leland Stanford, President, assisted by other officers of the Central Pacific, came forward; T. C. Durant, Vice-President of the Union Pacific, assisted by General Dodge and others of the same company, met them at the end of the rail, where they reverently paused, while a reverend gentleman invoked the Divine blessing. Then the last tie, a beautiful piece of workmanship, of California laurel, with silver plates on which were suitable inscriptions, was put in place, and the last connecting rails were laid by parties from each company. The last spikes were then presented, one of gold from California, one of silver from Nevada, and one of gold, silver and iron from Arizona. President Stanford then took the hammer, made of solid silver, and to the handle of which were attached the telegraph wires, and with the first tap on the head of the gold spike at 12, M., the news of the event was flashed over the continent. Speeches were made as each spike was driven, and when all was completed, cheer after cheer rent the air from the enthusiastic assemblage.

Then the Jupiter, a locomotive of the C. P. R. R. Co., and locomotive No. 116, of the U. P. R. R. Co., approached from each way, meeting on the dividing line, where they rubbed their brown noses together, while shaking hands, as illustrated above. To say that wine flowed freely would convey but a faint idea of the good feeling manifested and the provision made by each company for the entertainment of their guests, and the celebration of the event.

Immediately on the completion of the work, a charge was made on the last tie (not the silver-plated, gold-spiked laurel, for that had been removed and a pine tie substituted) by relic hunters, and soon it was cut and hacked to pieces, and the fragments carried away as trophies or mementoes of the great event. Even one of the rails last laid in place was cut and battered so badly that it was removed and another substituted. Weeks after the event we passed the place again, and found an enthusiastic person cutting a piece out of the *last* tie laid. He was proud of his treasure—that little chip of pine, for it was a piece of the last tie. We did not tell him that three or four ties had been placed there since the first was cut in pieces.

In the cars belonging to each line, a sumptuous repast was served up to the invited guests. Then as the sun sank low towards the western summit of Promontory Point, the long trains moved away with parting salutes from the locomotives, and the celebration was ended, the participants speeding away to their far distant homes, and so closed the eventful day on Promontory Point.

GREAT SALT LAKE—Behind the station at Promontory the hills rise into the dignity of mountains. To the top of the left hand point we strolled one bright, spring morning. After an hour's toilsome walking through sage-brush and bunch grass, then among sage-brush and rocks until we had attained a height to which that persistent shrub could not attain, then, among rocks, stunted cedars, tiny, delicate flowers and blooming mosses, until we stood on the summit of the peak, on a narrow ridge of granite, not over four feet wide, and there, almost at our feet (so steep was the mountain) lay the Great Salt Lake, spread out like a vast mirror before us, its placid bosom glittering in the morning sun like a field of burnished silver. Mile after mile it stretched away, placid and motionless, as though no life had ever caused a vibration of its currents or given one restless impulse to its briny bosom.

By the aid of the glass, Church or Antelope and other mountain islands could be distinctly seen, rear-

ing their towering crests far above the silver border at their base, their sloping sides enrobed in the greenest of all green covering. Standing there as lone sentinels in the midst of this waste of waters they possess a wondrous beauty as a recompense for their utter isolation.

Away beyond these islands rise the white-crested Wahsatch Mountains, and we think that we can pick out the curve in their brown sides where nestles Salt Lake City, secure and beautiful in her mountain fastness. Far away to the southward the range blends with the sky and water, and the dim, indistinct lines of green, brown and silver blend in one, while above them the clear blue of the mighty dome seems to float and quiver for a space, and then sweeps down to join them, blending with them in one waving mass of vanishing color, which slowly recedes in the dim distance until the eye can follow its course no farther. Turn now to the left, and there, sweeping up far behind Promontory Point is the north-western arm of the lake—Monument Bay. That long, green line is Monument Point, throwing its long ridge far out into the bosom of the lake, as though it would span the waters with a carpet of green. Away to the west Pilot Knob rears its crest of rocks from out the centre of the great American Desert. Do not look longer in that direction, all is desolation; only a barren plain, and hard, gray rocks, and glinting beds of alkali meet the vision.

One more view to the north, one look at the lines of green hills and greener slopes which sweep down toward the sandy, sage clad plateau on which stands the station; another and last look at the placid lake, and now, cooled and refreshed by the mountain breeze, we pluck a tiny moss bell from the cleft in the highest rock, and then descend the rugged mountain. We have seen Salt Lake from the most commanding point of view, and now we are better able to understand its shape and comprehend its dimensions, which are 126 miles in length by 45 in width. The principal islands are Antelope (15 miles long), Sheep's, Hot, Stansbury, Carrington and Egg. They possess many charming summer retreats, many natural bathing places, where the gravelly bays intrude among the grass-covered points and hillocks. The water is so buoyant that it is difficult for the bather to sink therein.

The lake has no outlet for the waters continually pouring into it from Bear, Jordan, Weber and other rivers. Evaporation absorbs the vast volume, but it is a noticeable fact, and one worthy of consideration, that since the settlements have been made in the Territory, and the bosom of the earth has been turned with the plow, rendering the barren wastes blooming and productive, that the waters of the lake have risen steadily, and now are 12 feet higher than they were 20 years ago. Fences, which once enclosed fine meadowland, are now just peering above the flood, marking its steady encroachment on the fertile bottom lands. The grand old mountains bear unmistakable evidence of the water's presence far up their rocky sides. At what time the floods reached that altitude, or whether those mountains were lifted from the present level of the lake by volcanic action, and carried these water lines with them, are questions no one can answer. Savans may give learned theories regarding things they know nothing of; they may demonstrate that Salt Lake is held in its present position by immutable laws, but they cannot destroy the ocular evidence that it is rising, slowly and steadily, and has been during the last 20 years.

COL. HUDNUT'S SURVEY—On the west side of Promontory Point, the line, known as Colonel Hudnut's



CAPE HORN, COLUMBIA RIVER, W. T. (See description page 136.)

survey of the Idaho and Oregon branch of the U. P. R., passes north to Pilot Springs; thence down Clear creek or Raft river to Snake river, and along the southern bank of this stream to Old's Ferry; thence across the country to Umatilla, on the Columbia river. For the entire distance between Promontory and Raft river the country is uninviting, though not barren. From thence the route passes through a country abounding in fertile valleys and bold mountains—the latter well-wooded. There is plenty of wood and other materials for building the proposed road along the whole length of the line. To the mouth of Raft river from Promontory is about 100 miles. The scenery along the line is varied, from smiling, fertile valleys to lofty, snow-clad mountains. We will speak only of the general characteristics of the route and of one or two points of remarkable interest. The main feature of the Snake or Shoshone river is its majestic cataracts. We will give a short description of the river in which they are found. The stream, sometimes called Lewis river, is the south fork of the Columbia, and was discovered by Lewis and Clark, who ventured westward of the Rocky Mountains in 1804. It rises in the Rocky Mountains, near Fremont's Peak, in the Wind River Range, which divides Idaho and Dakota Territories. The head waters of the stream are Gros Ventre, John Craig's and Salt creeks on the south, with the outlets of Lyon's and Barret's lakes on the north. The general course of the river from its source to Big Bend is north-west. At this point Henry's Fork, a large stream flowing from the north, empties its waters into the main river. Thence the course is south-westerly until the first falls are reached—about 400 miles from the river's source. These are called the AMERICAN FALLS and are very fine, but do not present so sublime an appearance as will be seen about 100 miles further down the river, where the waters leave the elevated plains of Idaho by a series of cascades, known as the SHOSHONE FALLS, from 30 to 60 feet high, closing the scene in one grand leap of 210 feet perpendicular. The width of the river at the point of taking the last leap is about 700 feet. The form of the falls is circular—somewhat like those of the Niagara. Before the river reaches the cascades it runs between lofty walls, which close in around it until but a narrow gorge is left for the passage of the water 1,000 feet below the tops of the bluffs. The most complete view of the falls is obtained from Lookout Point, a narrow spit of rocks which projects from the main bluffs a short distance down the stream from the falls. From this point Eagle Rock rises before us in the midst of the rapids, and almost overhanging the falls, fully 200 feet high; its pillar-like top surmounted by an eagle's nest, where, year after year, the monarch of the air has reared its young. Near the centre of the river are several islands covered with cedar, the largest one being called Ballard's Island. Two rocky points, one on either side of the falls, are called the Two Sentinels. Excepting in point of the volume of water, the falls will compare favorably with Niagara.

From this point the river runs nearly west until it reaches War Eagle Mountains, about 800 miles from its source, when it turns due north, following that course for 150 miles, then bending again to the west it unites with Clark's river, forming the Columbia. After leaving the last falls the country is less broken, and the work of building the road would be comparatively light for most of the way.

We now resume our westward journey from Promontory. Four miles west (near a gravel track on the north side) can be seen close to the road, on the south side, a sign-board, which reads,

"TEN MILES OF TRACK IN ONE DAY."

Again, on the same side, ten miles further west, another with the same inscription will appear. These boards mark the track which was laid by the track layers of the Central Pacific Company in *one day*, under the immediate charge of J. H. Strowbridge, Superintendent of Construction, H. H. Minkler, track layer, and James Campbell, Superintendent of Division. This undoubtedly is the most extraordinary feat of the kind ever accomplished in this or any other country.

WHY IT WAS DONE.—During the building of the road a great rivalry existed between the two companies as to which could lay the most track in one day. This rivalry commenced early in the year 1868. The "Union" laying six miles; soon after the "Central" laid seven miles, and then again the "Union" seven and a half miles. The "Central" men, not to be outdone, announced that they could lay ten miles in one day. Mr. Durant, Vice-President of the "Union" offered to bet \$10,000 that it could not be done, and the "Central" resolved it *should* be done. Consequently, on the 29th day of April, 1869, when only fourteen miles of track remained to be laid to meet the Union at Promontory Point, and in the presence of Governor Stanford and many prominent men from the East and West, and a committee from the "Union" to note the progress, the work commenced.

HOW IT WAS DONE.—When the car loaded with rails came to the end of the track, the two outer rails on either side were seized with iron nippers, hauled forward off the car, and laid on the ties by four men who attended exclusively to this. Over these rails the car was pushed forward, and the process repeated. Behind these men came a gang of men who half drove the spikes and screwed on the fish-plates. At a short interval behind these came a gang of Chinamen who drove home the spikes already inserted and added the rest. Behind these came a second squad of Chinamen two deep on each side of the track. The inner men had shovels, the outer ones picks. Together, they ballasted the track. The average rate of speed at which all these processes were carried on was one minute and 47½ seconds to every 240 feet of track laid down.

MATERIAL REQUIRED.

Those unacquainted with the enormous amount of material required to build ten miles of railroad can learn something from the following figures. It requires 25,800 cross ties, 3,520 iron rails, 55,000 spikes, 7,040 fish-plates, and 14,080 bolts, the whole weighing 4,362,000 lbs. This material is required for a *single* track, exclusive of "turnouts."

To bring this material forward and place it in position, over 4000 men, and hundreds of cars and wagons, were employed. The discipline acquired in the four years since the commencement of the road enabled the force to begin at the usual time in the morning, calm and unexcited, and march steadily on to "Victory," as the place where they rested at 1.30 P. M. was called (now called Rozel), having laid *eight miles of track in six hours*. Here this great "Central" army must be fed, but Campbell was equal to the requirements. The camp and water train was brought up at the proper moment, and the whole force took dinner, including many distinguished guests. After the "*hour nooning*," the army was again on the march, and at precisely 7 P. M. 10 miles and 200 feet had been completed.

When this was done, the "Union" Committee expressed their satisfaction and returned to their camp, and Campbell sprang upon an engine and ran it over the ten miles of track in *forty minutes*, thus demonstrating that the work was *well done*.



CROSSING TRUCKEE RIVER, SIX MILES EAST OF BOCA, C. P. R. R.

BOZEL—Is eight miles west of Promontory. Trains stop only on signal. Salt Lake fairly "spreads itself" on the left.

LAKE—Is another unimportant station eight miles from Bozel.

MONUMENT—Eight miles further. Elevation 4,222 feet. Here, many times, the lake breeze sweeps by, bearing the heavy alkaline and saline odors peculiar to this locality, and peculiarly offensive to invalids. Monument Point—a slim, tapering promontory, stretches far out into the lake, covered with excellent grass. We shall not see much more of the article for some time to come, for we are now on what might well be called the American desert.

SECO—Seven miles—descending a heavy grade we sweep around the head of the western arm of the lake, nearing and leaving its waters for the last time.

KELTON—Or Indian Creek, as it is sometimes called, is seven miles west of Seco. Elevation 4,222 feet. This is a station of more importance than any yet passed since leaving Promontory. There are large water tanks by the road-side, supplied from a spring in the foot-hills some miles to the northward. Here the Railroad Co. fill their water cars—a train of which runs daily to supply many of the stations on this division of the road. The Red Dome Mountains show their scattered spurs to the north, and to the south-east Pilot Knob or Peak can be seen lifting its rocky front far above the desert.

From this station a daily line of coaches leave for Idaho and Oregon on arrival of the cars. The route passes through Idaho and the eastern part of Oregon, connecting with the steamers of the Oregon Steam

Navigation Company at Umatilla, on the Columbia river. Through to Boise in two days; Walla Walla in four days; Portland in five and a half days.

The **BOISE COUNTRY**, to which the line of stages spoken of convey the adventurous passengers, lies in the south-western portion of Idaho Territory, bordering on Oregon. Extensive mines of gold have been worked there for years, and still continue to attract much attention, as rich mines of gold-bearing quartz have been discovered and worked since the placer mines have been partially exhausted. The principal mining country is in that portion generally designated as the Boise Basin, which comprises a scope of country about 150 miles north and south, by a length of about 200 miles. The Boise mines lie north of the Snake or Shoshone river. The principal streams in the mining section are Boise river, Fayette river, Wind creek, Moore's creek and Salmon river. The Owyhee mines lie south of the Snake river and War Eagle Mountains. This portion of the mining belt of Idaho is not as extensive as the one just mentioned. The ores are mostly silver.

BOISE CITY is the capital of the Territory and county seat of Ada county. Population about 6,000. The town site was laid out in 1863, and now contains about 500 buildings, a considerable portion of which are of brick and stone. The town is situated in a fine agricultural valley, about two miles wide by fifty long. It is the centre of several stage routes, and also of trade for a large section of country. The *Star*, a tri-weekly paper, is published here.

IDAHO is the second city in size in the Territory. Population about 2,500. It lies 36 miles north-east of Boise City, with which it is connected with stage, and also with Umatilla, Oregon. The *World* newspaper is published here—semi-weekly.

SILVER CITY contains about 2,000 inhabitants. The

buildings are mostly granite. The *Avalanch*, a weekly paper, represents the interests of the town.

We now return to the railroad.

OMBEY—Is eleven miles west of Kelton. Passenger trains seldom stop here.

MATLIN—Ten miles further, is on the high lands, which sweep out from the Red Dome Mountains. Elevation 4,630 feet. Here these mountains—low sandstone ridges—are nearer the track, breaking the general monotony of the scene. The road lies on the northern border of a vast waste whereon we see few signs of verdure. The station is about midway from east to west of the

AMERICAN DESERT,

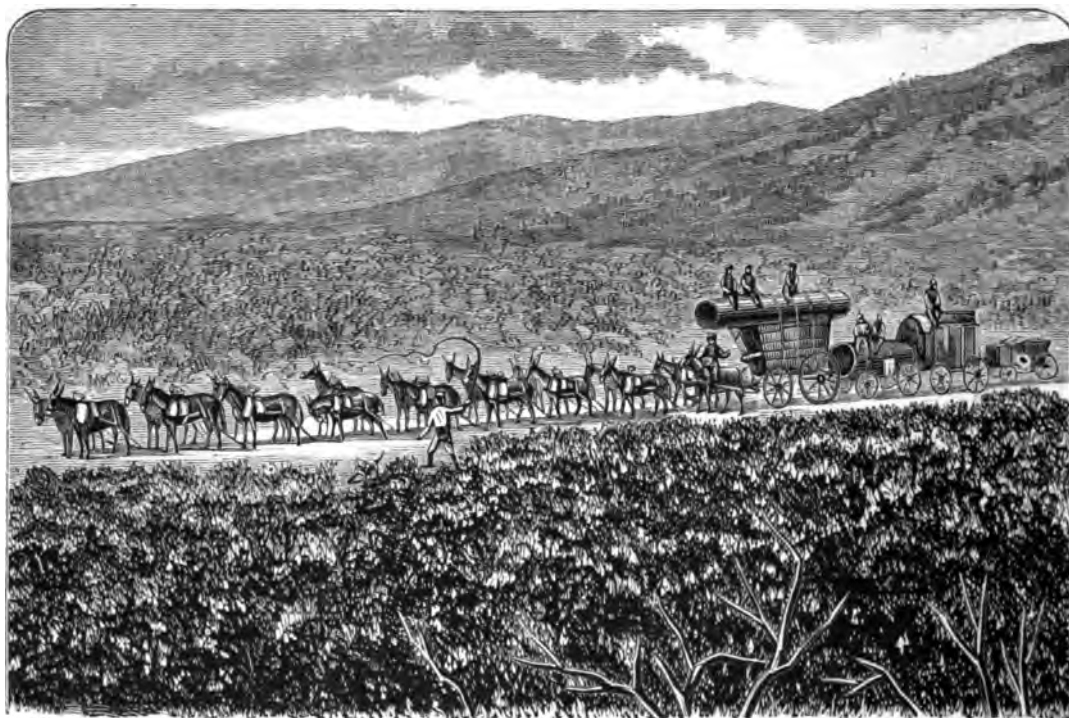
which extends over an area of about 60 square miles. Over this vast extent the eye wanders in vain for some green object—some evidence that in times gone by this waste supported animal life, or will eventually in years to come. All is desolate in the extreme; the bare beds of alkali, or wastes of gray sand only meet the vision, if we except now and then a rocky hill more barren than the plains, if such things were possible. Evidently this desert was once the bed of a saline lake, perhaps a portion of the Great Salt Lake itself. The sloping plain sweeps off towards that body of water, and in places bends down until its thirsty sands are laved by the briny flood. There are many evidences in support of the theory that it was once covered by those waters, although much higher than the present level of the lake. The saline matter is plainly discernible in many places, and along the red sandstone buttes which mark its northern border. The long line of water wash, so distinctly seen at Ogden and other points along the lake shore, can be distinctly

traced, and apparently on the same level as the bed at those places. The difference in the altitude of the road is plainly indicated by this line, for as we journey westward, and the elevation of the plateau increases we find that the water-wash line blends with the surrounding ground and is seen no more.

TERRACE—Is ten miles west of Matlin. Elevation 4,619 feet. Here the railroad company have erected work-shops and a 16-stall round-house. To the northward the hills which mark the entrance to the Thousand Spring Valley are plainly seen; they are brown and uninviting as the country we are passing through.

BOVINE—Eleven miles further. There is little interest to note, the face of the country remaining about the same, though gradually improving. Spots of bunch grass appear at intervals, and the sage-brush seems to have taken a new lease of life, indicating more congenial soil.

LUCIN—Thirteen miles. At this point we find water tanks supplied by springs in the hills at the outlet of Thousand Spring Valley, which lies to the north just behind that first bare ridge, one of the spurs of the Humboldt Range, but a few miles distant. The valley is about four miles wide, and not far from 60 miles long, taking in its windings from this point to where it breaks over the divide into Humboldt Valley. It is little better than one continual bog in the centre—water from the numerous brackish springs found there standing in pools over the surface. There is good range of pasturage for the cattle in the valley and beyond. The old emigrant road branches off at or near the station, one road passing through the valley, the



Mule Team, in 1869, loaded with Boilers and Machinery, weighing 54,000 pounds, en route from Elko to White Pine.

other following nearly the line of the railroad until it reaches the Humboldt *via* Humboldt Wells.

Goose or Hot Spring creek, a small stream which courses through the valley its entire length, sinks near by the station, rising and sinking at intervals, until it is lost in the desert.

Before reaching the next station we leave Utah and enter the State of Nevada.

TECOMA—Ten miles west of Lucin. Elevation 4,812 feet. During the past year quite an excitement was created among the mining operators by the discovery of rich silver and lead mines, situated about five miles south of this station in the Toano range of mountains. A new town was laid out at the mines—called **BUEL**.

A smelting furnace was erected at the mines and a run of 200 tons of bullion produced, valued at \$39,000, which was shipped to San Francisco on one train, creating no small excitement on California street. Indications of coal mines have been found in the vicinity but no systematic effort has yet been made to develop them.

PILOT PEAK, a noted landmark which has been visible for the passed fifty miles, lies almost due south of this station—distance 36 miles. It is a lofty pile of rocks—the eastern terminus of Pilot Mountains—rising about 2,500 feet above the barren sands. For about half-way from the base to the summit the sides are shelving piles of shattered rock—huge masses crushed to atoms. Above that it rises perpendicular, the summit looking like some old castle when seen at a distance. From Promontory Point, looking westward, this vast pile can be seen on a clear day—a dark mass amid the blue haze which bounds the western horizon. To the emigrant, in early days, before the railroad, it was a welcome landmark, pointing his course to Humboldt Wells or Thousand Spring Valley, where he was sure to find water and feed for his weary teams, after crossing the barren waste.

MONTELO—Is ten miles further west. Elevation 4,999 feet. The general aspect of the country is changing with the increasing elevation. We approach nearer the long, rough ridge of the Goose Creek Range, whose sides and gulches afford pasturage and water at intervals. We are leaving the barren sands behind us, and though the country is still uninviting, it looks more capable of supporting animal life during a portion of the year.

LORAY—Comes next, after eight miles, but it is a station of little importance to the traveler.

TOANO—Seven miles further, is the end of the Salt Lake, and the commencement of the Humboldt divisions. The company have here erected work-shops and a 14-stall round-house. Elevation 5,970 feet. Toano is centrally located as regards many mining districts in Eastern Nevada, among which are Egan Cañon, Kinsley, Kern, Patterson, Ely, Pahranaagat and Deep Creek—all of which are under rapid development. A stage line is in operation from this place to Egan Cañon and the Cherry Creek mines, a distance of 90 miles south. Soon after leaving Toano we begin the ascent of Cedar Pass, which divides the Desert from Humboldt Valley. The country is more broken, but possessing more vegetation. We have passed the western line of the Desert, where, in early days, the travel-worn emigrant wearily toiled through the burning sand, his journey unenlivened by the sight of water or vegetation. One word more, regarding this desert: the term sand is generally applied, when speaking of the soil of the barren wastes which occur at intervals along the road. With one or two exceptions it is a

misnomer, though it well applies to the desert we have crossed. Most of the surface of this waste is sand, fine, hard and gray, mixed with marine shells and fossilized fragments of another age. There is no evidence on which to found a hope that this portion of the country could be rendered subservient to the use of man, consisting, as it does, of beds of sands and alkali, overlaying a heavy gravel deposit. Ages must pass away before nature's wondrous changes shall render this desert fit for the habitation of man.

PEQUOP—Ten miles west of Toano.

OTEGO—Six miles from Pequop, and

INDEPENDENCE—Five miles further—are all unimportant Signal Stations where passenger trains seldom stop. Independence Springs, from which this station derives its name, are near by, and supply an abundance of very good cold water.

Independence, Clover and Ruby Valleys, lie to the southward. The two first named are small and valueless except for grazing purposes. From Cedar Pass a spur, or rather a low range of hills extends far to the southward. About 70 or 80 miles south of the pass, is the South Fork of the Humboldt cañons through this range, running to the east and north of another range until it reaches the main Humboldt. Although the range first mentioned, after having united with the western range south of the South Fork, extends much further south, we will follow it only to Fort Ruby, which is situated in the south end of Ruby Valley, near to the South Fork. From this fort to the pass is about 65 miles, which may be taken as the length of the valley. The average width is ten miles from the western range mentioned to the foot-hills of Ruby Range, which hems in the valley to the east. A large portion of this valley is very productive and is occupied by settlers—mostly discharged soldiers from Fort Ruby. In the south-eastern portion of the valley is Ruby and Franklin Lakes, which are spoken of under the general term of Ruby Lake, for in high water they are united, forming a brackish sheet of water about 15 miles long by 7 in width, which has no outlet. It is, like Humboldt, Carson and Pyramid lakes in the Truckee Desert—merely a reservoir, where the floods accumulate to evaporate in the dry summer. The old stage road, from Salt Lake to Austin, crosses the foot of the valley at Ruby Station. About 20 miles east of the Ruby Range lies Goshoot Lake, another brackish pond, with two small tributaries and no outlet, rather wider and about the same length as Ruby Lake. About half way between Goshoot and the railroad lies Snow Lake, about five miles in diameter, possessing the same general characteristics as the others. With the exception of the valleys around these lakes and along the water-courses the country is very uninviting in appearance, being little better than a desert.

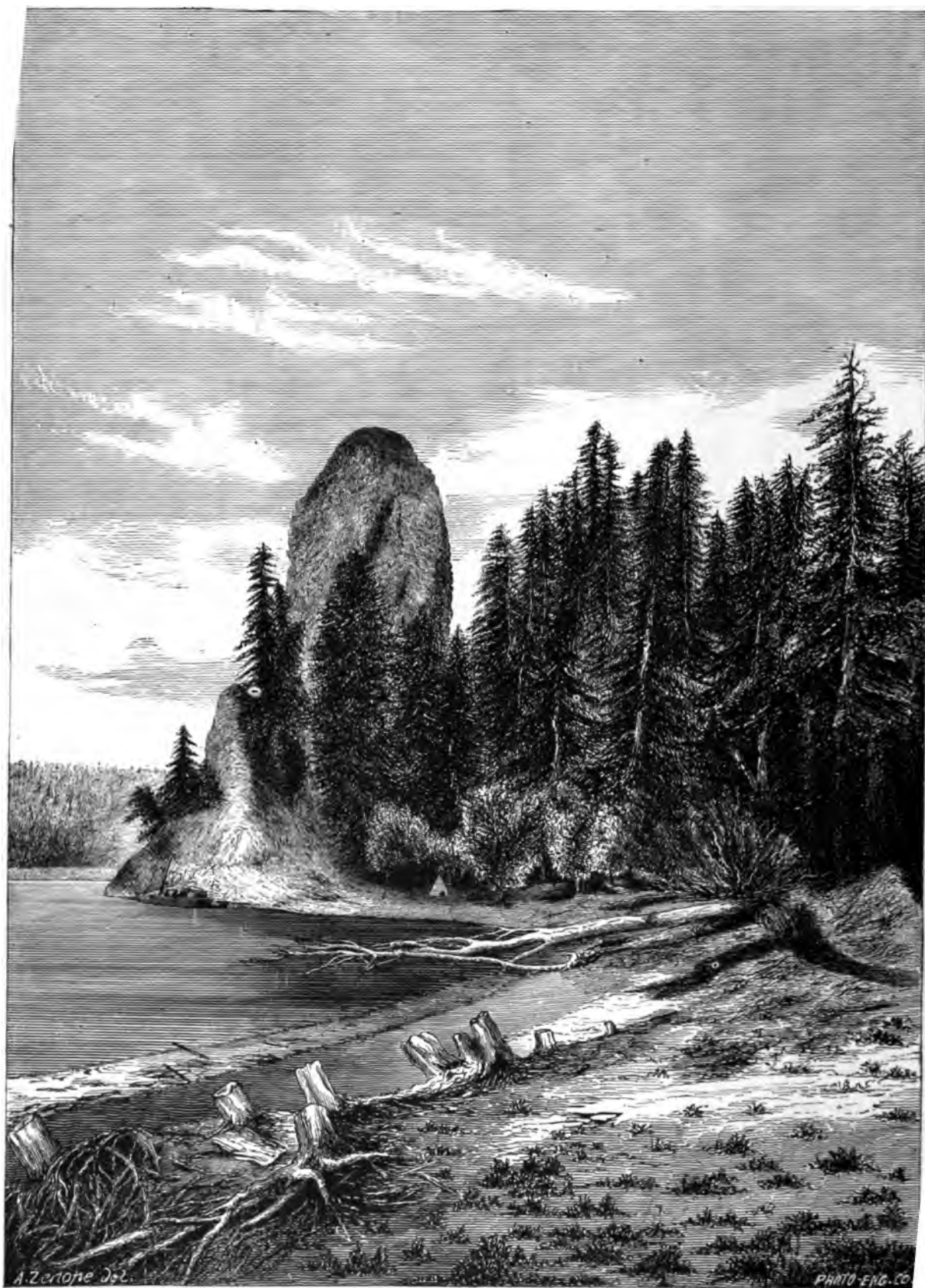
In the Ruby range rich silver lodes have been discovered, some rock of which has been found to assay as high as \$800 per ton.

Returning to Independence we again proceed westward—the country is rolling and broken.

MOORE'S—Is six miles west on the summit of Cedar Pass. Elevation 6,118 feet. We now have down grade for 311 miles to the Nevada desert.

In general outline this pass resembles a rather rough, broken plateau, bent upward in the middle, forming a natural road-bed from the desert to the Humboldt Valley. It was once covered with scrub cedar which has been cut off for use by the Railroad Company and others.

To the northward considerable wood is still ob-



"ROOSTER ROCK," COLUMBIA RIVER, OREGON. (See description page 158.)

tained in the mountains. About 15 miles to the north a high, craggy peak marks the point where Thousand Spring Valley bends to the southward, and from its divide slopes down to the valley of the Humboldt.

CEDAR—A small unimportant station, three miles west. The appearance of the country is improving.

WELLS—Six miles further is one of the most noted points along the road. Rich mineral discoveries have been made about 35 or 40 miles south-east of Wells—east of Clover Valley—and the Johnson & Latham Mining District has been organized. The veins are reported large, well defined, and rich in silver, copper and lead; large deposits of iron ore have also been found. The district is well supplied with wood and water, and easy of access from the railroad. A new stage line has just been established to the above named district, extending 100 miles south to Shellburn, near the old Overland Stage Road, in the Shellcreek mining district.

A stage line is also in operation to Shellburn and the Bull Run district.

The chief point of interest around the station are the celebrated

HUMBOLDT WELLS,

around which the emigrants, in early times, used to camp while they recruited their teams after a long, hard journey across the desert. The wells are situated in the midst of a beautiful meadow or valley, which, from this point, slopes away until it joins with the Humboldt or main valley. The springs, or wells—about twenty in number, are scattered over this little valley; one from which the company obtain their supply of water being within 200 yards of the road, and about that distance west of the station. A house has been built over it, and the water is raised into the tanks by means of an engine.

These wells would hardly be noticed by the traveler—unless his attention was called to them. Nothing marks their presence except the circle of rank grass around them. When standing on the bank of one of these curious springs you look on a still surface of water, perhaps six or seven feet across, and nearly round; no current disturbs it; it resembles a well more than a natural spring, and you look around to see the dirt which was taken therefrom when the well was dug. The water, which is slightly brackish, rises to the surface, seeping off through the loose, sandy loam soil of the valley. No bottom has been found to these wells, and they have been sounded to a great depth. Undoubtedly they are the craters of volcanoes, long since extinct, but which at one time threw up this vast body of lava of which the soil of Cedar Pass is largely composed. The whole face of the country bears evidence of the mighty change which has been taking place for centuries. Lava in hard rough blocks, lava decomposed and powdered, huge blocks of granite and sandstone in the foot-hills, broken, shattered and thrown around in wild confusion, are some of the signs indicative of an age when desolation reigned supreme. The valley in which the wells are situated is about five miles long by three wide, covered with a luxuriant growth of grass. It is excellent farming land, capable of producing luxuriant crops of vegetables, grain or grass. The low hills afford an extensive "range" and good grazing. The transition from the parched desert and barren upland to these green and well-watered valleys is so sudden that it seems like the work of magic.—One moment in the midst of desolation, the next in the midst of the green valleys redolent with the aroma of the countless flowers which deck their breasts.

Leaving Humboldt Wells we proceed down the valley for a few miles when we enter the main Valley of the Humboldt, one of the richest agricultural and grazing valleys to be found in the State. The soil is a deep, black loam, moist enough for all purposes without irrigation, from 15 inches to two feet deep. This portion of the Humboldt, extends for about 80 miles in length, with an average width of ten miles, nearly every acre included therein being of quality described. From Osino cañon to the head-waters of the valley is unoccupied, with the exception of a few settlers who have taken up hay ranches below Halleck. The river abounds with fish and the foot-hills with deer and other game.

THE HUMBOLDT RIVER rises in the Humboldt Mountains, north-west of Cedar Pass, and courses westerly for about 250 miles, when it bends to the south, emptying into Humboldt Lake, about 50 miles from the Big Bend. It is a rapid stream for most of the distance, possessing few fords or convenient places for crossing. The railroad follows down its northern bank until it reaches 12 mile cañon, about 16 miles west of Carlin. Here it crosses to the south side of the river and continues about 170 miles, when it crosses again and leaves the river, skirting the foot hills in full view of the river and lake.

The main stream has many varieties of fish, and at certain seasons of the year its waters are a great resort for wild ducks and geese. Where it enters the lake the volume of water is much less than it is 100 miles above, owing to the aridity of the soil through which it passes. Of the valleys bordering it we shall speak separately, as each division is totally distinct in its general features. The "old emigrant road" can be distinctly traced along the river from its head to its source.

TULASCO—A small signal station, is seven miles west of Wells.

BISHOP'S—Is five miles further, where Bishop's Valley unites with the Humboldt. This valley is 60 miles long, with an average width of five miles. It is very fertile, being watered by Bishop's Creek, which rises in the Humboldt Mountains near Humboldt Cañon—about 70 miles to the north-east, and winds through the valley. It is a narrow, deep stream, abounding in many varieties of fish, among which are trout of excellent quality.

DEETH—Is an unimportant station, eight miles from Bishop's.

HALLECK—Comes next after thirteen miles. At this station Government stores are left for

FORT HALLECK,

a military station on the opposite side of the river. At the foot of the mountain—about twelve miles distant from the station—can be seen some settlers' buildings, which are situated on the road to the post. The military post is hid from view by the intervening hills. It is situated on an elevated plateau, which lies partially behind the first range, debouching thence in a long upland, which extends some distance down the river. The valleys which lie among the hills, as well as this upland, are settled, and have proved very productive. Wheat, barley and vegetables are extensively cultivated, and a ready market is found along the railroad for the surplus crop.

PEKO—Is an unimportant station three miles west of Halleck. Just after leaving the station we cross the north fork of the Humboldt on a truss bridge. This river, where it unites with the main stream, is about of equal size. It rises about 100 miles to the



FIRST CONSTRUCTION TRAIN PASSING THE PALISADES, C. P. R. R. (See page 103.)

north, and receives as tributaries many small creeks and rivulets which are well stocked with various kinds of fish.

The valley of the North Fork is from five to seven miles wide and covered with a heavy growth of grass, and, like the main valley, is susceptible of a high state of cultivation. Wheat, barley and vegetables of all kinds—where cultivated—yield handsome returns. The seasons are long enough, and the absence of early and late frosts insures a matured crop. Around the head of this valley are many smaller ones, each tributary stream having its own separate body of valley land. Some are perfect gems, nestled among the hills and almost surrounded by timber. Here game in abundance is found—quail, grouse, hare, deer and bear, and sometimes a "mountain lion." The tourist, angler, and hunter will find enough to occupy them pleasantly for a short stay should they choose to visit this region. In the main and smaller valleys are many thousand acres of government land unclaimed, excepting that portion owned by the railroad company.

The Humboldt and all its tributary valleys, as a range for stock have no superior west of the Rocky Mountains. The winters are mild—snow rarely falling sufficiently deep to render it necessary to feed the stock. Wild cattle are found in the valleys and among the hills, which have never received any attention or care. Stock-raisers are turning their attention of late to this country and find it very remunerative. The range is not confined to the valley alone, the foot-hills and even the mountain sides produce the bunch-grass in profusion. Wherever sage-brush grows rank on the hill-sides, bunch-grass thrives equally well.

OSINO—Is eleven miles down the valley from Peko—a signal station at the head of Osino Cañon, where the valley suddenly ends.

At this point the northern range of the mountains, sweeps down to the river bank, which now assumes a tortuous course—seeming to double back on itself in places—completely bewildering the traveler. Across the river the high peaks of the opposite chain rise clear and bold from the valley, contrasting strongly with the black, broken masses of shattered mountains among which we are winding in and out, seemingly in an endless labyrinth. Now we wind round a high point, the rail lying close to the river's brink, and next we cross a little valley with the water washing against the opposite bluffs, half a mile away. A dense mass of willow covers the bottom lands through which the river wanders. On around another rocky point and we are in a wider portion of the cañon, with an occasional strip of meadow land in view, when suddenly we emerge into a beautiful valley, across which we speed, the road curving around to the right, and nine miles from the last station we arrive at

ELKO—The county seat of Elko County. Population about 1,000. Elevation 5,065 feet. From Omaha 1,307 miles; from San Francisco 607. Elko is a regular stopping station for all trains from the east and west. A good meal can be had for one dollar in coin. The town formerly consisted of wood and canvas houses—now the latter class is rapidly being replaced by something more substantial. During the last year the town has improved materially. The State University, which cost \$30,000, is located here, just to the northward of the town. At this station—and almost every one to the westward—can be seen representatives of the Shoshonee or Pinte Indians, who come around the cars to beg. Any person who wishes to tell a big 1—whopper—would say, they are clean, neatly dressed, "child-like and bland," and perfumed with the choicest attar of roses, but an old plains-man

would reverse the saying in terms more expressive than elegant.

Elko, some years ago, was the only station from which stage lines and freight teams left the railroad for the White Pine country; now they are run from Palisade, 34 miles west. Stages are now run from this station south to Railroad district, 25 miles, and to Eureka, 10 miles, and north to Mountain City, in Cope district, 10 miles. Fare to Cornacopia, \$20; to Bull Run and Tuscarora, \$15. Large quantities of freight are shipped from this station to all the above named places and mining camps in the vicinity. The *Independent*, a weekly newspaper, is published here.

Near the town some WARM SPRINGS are attracting attention. The medicinal qualities of the water are highly spoken of. A hack plies between the hotel and the springs, making regular trips for the accommodation of visitors.

The rich silver mining district of Cope is about 100 miles due north of Elko, near the head waters of the North Fork of the Humboldt, bordering on the Ruby country. Some very rich mines have been discovered and several quartz mills erected.

This section is well watered by rapid mountain streams, and the country abounds in game of all kinds, a hunter's paradise. The valley of the Humboldt, twenty miles above and below Elko, cannot be ranked as among the best of its bottom lands, though susceptible of cultivation to a considerable degree. It is a narrow strip of meadow, the remainder being either gravelly land, covered with sage-brush and bunch grass. Without irrigation it is useless for agricultural purposes.

Passing down from Elko—the valley dotted with the meadows of the rancher for about nine miles—we come to the South Fork of the Humboldt. This stream is about 100 miles to the south-east. It cañons through Ruby Mountains, and then follows down the eastern side of one of the numerous ranges, which, under the general name of the Humboldt Mountains, erect the country.

For portions of the distance there is fine valley land along the stream, ranging from one to seven miles wide. Even as a body it is inferior to either the main or the South Fork valleys, still much good grazing land may be obtained, as well as land adapted to cultivation.

MOLEEN—Is a signal station twelve miles west of Elko. After leaving this station the valley presents a changed appearance. The meadow lands are broad and open, extending over most of the valley; on the right the bluffs are high and covered with luxuriant bunch grass. Soon the meadows are almost entirely closed in, and we enter Five Mile Cañon. Through this the river runs quite rapidly; its clear waters sparkling in the sunlight as they speed along, while occasional narrow strips of meadow land are to be seen at times.

The scenery along this cañon is hardly surpassed by the bold and varied panorama presented to our view from the base of the snow-capped mountains through which the river and railroad have forced their way. Soon after entering the cañon, we pass several isolated masses of conglomerate rock, towering to the height of nearly 200 feet. Leaving this cañon, we find Susan Valley, another strip of good farming land, about 20 miles long by 4 wide, bordering the East Fork of Maggie's Creek. Among the foot-hills of the Owyhee range to the northward are many beautiful, fertile valleys, well watered by mountain streams, waiting only the advent of the settler to transform them into productive farms. Timber is plenty in the ravines and on the hill-sides—sufficient for the wants of a large popula-

tion. Passing on to near the next station we cross Maggie's Creek, which empties into the Humboldt from the north. This stream is named for a beautiful Scotch girl whose parents stayed here for a time while "recruiting their stock" in the old times when the early emigrants toiled up the river. It rises in the Owyhee Mountains, about 80 miles to the northward.

The valley through which the stream flows is from three to five miles wide and very fertile. It extends to the base of the mountains, about 70 miles, and is unsettled. The stream affords excellent trout fishing, and game of various kinds abound on the hills bordering the valley. Some time since, a wagon road was surveyed and located up this valley to Idaho Territory.

CARLIN—Eleven miles west of Moleen, contains about 500 population. Here are located the offices of Humboldt division, and the division workshops. The latter are of wood and consists of a round-house of 16 stalls, a machine, car, and blacksmith shop. The railroad was completed to this place Dec. 20th, 1868.

It is reported that Fort Halleck, Camp McDermott, and several other small government posts in the eastern and northern portions of Nevada are to be abandoned during the present year and a post established near this station—*Quien sabe?*

To the South of Carlin, from 15 to 60 miles, are located mines rich in gold, silver, copper and iron. To the northward rich discoveries have been made, extending to the Owyhee country. In both these sections new mining districts have been located, and the attention of experienced capitalists are being attracted thereto.

PINE VALLEY, to the southward, is about 40 miles long by 7 wide; is good agricultural land, well watered by Pine creek, a never-failing stream, which traverses its entire length. Along this stream, and on the surrounding hills, vast quantities of wood are obtained for the use of the road.

DIAMOND VALLEY is still further south. It is 40 miles in length, with an average width of 8 miles. It is well watered by numerous mountain springs, but has no running streams, and affords excellent grazing.

MARY'S CREEK rises three miles north and enters the Humboldt at Carlin. It rises in a beautiful lakelet nestled among the hills and bordered by a narrow slip of fine valley land. The valley of the stream, and that portion surrounding its head waters, is occupied by settlers.

Proceeding down the river from Carlin, for some distance the green meadows continuing fair and wide, then the sloping hills give place to lofty mountains, which close in on either hand, shutting out the valley.

From the appearance of this mountain range one would suppose that it had extended across the valley at one time, forming a vast lake of the waters of the river, then some mighty convulsion of nature rent the solid wall asunder, forming a passage for the waters which wash the base of the cliffs, which are from 500 to 1,500 feet high. This place is generally known as

THE PALISADES.

Humboldt or Twelve Mile Cañon, although it does not possess similar points of interest with Echo and Weber cañons, yet in many particulars the scenery is equally grand. The absence of varied coloring may be urged against its claims to equality with these places, but on the other hand its bleak, bare, brown walls possess a majesty and gloomy grandeur which coloring could not improve. In passing down this cañon we seem to be passing between two walls which threaten



PALISADES OF THE HUMBOLDT, (C. P. R. R.)

to close together ere we shall gain the outlet. The river rolls at our feet a rapid, boiling current, tossed from side to side of the gorge by the rocks, wasting its fury in vain attempts to break away its prison walls. The walls in places have crumbled, and large masses of crushed rocks slope down to the river brink. Seams of iron ore and copper-bearing rock break the monotony of color, showing the existence of large deposits of these materials among these brown old mountains. Now we pass "Red Cliff," which rears its battered frontlet 1,000 feet above the water. A colony of swallows have taken possession of the rock, and built their curious nests upon its face. From out their mud palaces they look down upon us, no doubt wondering about the great monster rushing past, and after he has disappeared, gossiping among themselves of the good old times when his presence was unknown in the cañon. Now we pass "Maggie's Bower," a brown arch on the face of the cliff, about 500 feet from its base. We could not see much bower—unless it was the left bower, for we left it behind us.

PALISADE—Is a station in the midst of "The Palisades," nine miles west of Carlin. Population about 300. Elevation 4,840 feet. Passengers can, almost always, see large piles of bullion pigs piled up at the freight warehouse awaiting shipment. This bullion is hauled in wagons from the smelting furnaces, from 30 to 90 miles to the southward. A narrow gauge railroad is now in progress of construction, called the Eureka and Palisade Railroad. During the year it is designed to complete the road to Eureka, 90 miles distant, and at an early day extend it to Pioche, 190 miles further. This road is being built by a company of stage men who have mail, express and freight contracts, as an incentive to complete the work, and

who possess the ready coin to do it with. When this road is completed to Eureka it will control the whole freight and carrying business for the White Pine mining country, the principal city of which, Hamilton, is only 20 miles distant from Eureka.

Stages carrying passengers, mails and express, now leave Palisades daily for White Pine via Mineral Hill, 30 miles, Eureka, 90 miles, and Hamilton City 110 miles. Most of the freight for these places, and the other mining camps to the southward, are hauled from this station.

THE WHITE PINE COUNTRY is reached by stage from Palisade Station, distance about 110 miles south-east. It is nearly due east of Virginia City and Gold Hill, where the first silver mining excitement occurred on the Pacific slope, and by many is supposed to be on the same range which produced the Comstock and other famous lodes. Possibly such is the case, though "ranges" have been terribly shaken about in this section of our country. Among the chief mines located and worked around Hamilton and Treasure City are the Eberhardt, California, Hidden Treasure, Consolidated Chloride, Aurora, Aurora South, Alturas, Summit and Nevada, Post Hole, Industry, Willard, and many others.

The Eberhardt mine, which first attracted attention to this locality, was discovered in 1866, but the great stampede of miners and speculators to that quarter did not take place until the winter and spring of 1869. As far as prospected the veins, in a majority of cases, are not regular, being broken and turned in every direction. Some are flat, others dip at a regular angle and have solid walls. The Base Metal Range in this vicinity is attracting considerable attention at this time, and large numbers of smelting furnaces are being erected to reduce the ores into base bullion for shipment.

About four hundred people were at work in this district in February, 1869, and now the population is estimated at 10,000. To give any correct idea of the magnitude of the mines or the appearance of the country out of the question in the space at our disposal, the altitude of the country renders it very unpleasant to new-comers, especially if their lungs are weak.

TREASURE HILL, near the summit of which stands **Treasure City**, is apparently one mass of ore, judging from the hundreds of claims which are located thereon. It is an isolated peak, about 4,000 feet from base to summit, and 9,265 feet above the level of the sea. Along the eastern and western base of the hill, mountain ranges stretch away until they unite and form one main on the north, but south of Treasure Hill they are separated for about twelve miles, when they break away and leave a broad valley lying between them. These ranges, the Diamond and White Pine, are portioned off into mining districts, where many valuable mines have been located. The assays from various lodes are highly flattering to the owners, it, in general, these assays are poor guarantees of what the rock will yield when worked by mill process. I remember hearing that once upon a time an old prospector had an assay made of some rock in Gold Hill, when assays from new mines were of daily occurrence. The result was highly encouraging, the rock yielding a trifle more in silver per ton than it would yield if solid metal, beside \$39.10 in gold. Considering that the specimen assayed was a fragment of a rock, the effort of the assayer was terrific.

There are three incorporated cities in this district. **TREASURE CITY** is the principal mining town. It is situated on Treasure Hill, two and a half miles from Hamilton, in latitude 39 deg. 14 min. 38 sec.; longitude 115 deg. 27 min. 49 sec. It is about 300 miles west of Salt Lake City.

HAMILTON, the county seat of White Pine county, is situated at the base of Treasure Hill, with superior advantages for milling purposes.

SHERMANTOWN is where are located a large number of melting furnaces, engaged reducing the base silver metal into bars of base bullion for shipment to furnaces on the east or west, where they have better facilities for saving more of the metal. This Base Metal Range is very extensive, and from the sheltered situation of Shermantown, it must be the centre of an immense business. Instead of 20 furnaces, there is work for hundreds.

THE GREAT CAVE of Eastern Nevada lies about eighty-five miles to the south-west of White Pine. It is situated in one of the low foot-hills of the Mill Creek Range, which extends for about two miles to a branch of Steptoe valley. The ridge is low, not over 60 or 65 feet high, and presents no indications which would lead one to suspect that it guarded the entrance to an immense cavern. The entrance to the cave would hardly be noticed by travelers, it being very small and partially obscured. A rock archway, small and low, admits the explorer, who must pass along a low passage for about 20 feet, when it gradually widens out, with a corresponding elevation of roof. Many of the chambers discovered are of great size; one, called the meeting hall, being about seventy by ninety feet. The floor is about forty feet from the floor, which is covered with fine gray sand. Opening into this chamber are several smaller ones, and, near by, a clear, cold spring of excellent water gushes forth from the rock. Further on are more chambers, the walls of which are covered with stalactites of varied styles of beauty. Stalagmites are found on the floors in great numbers. It is not

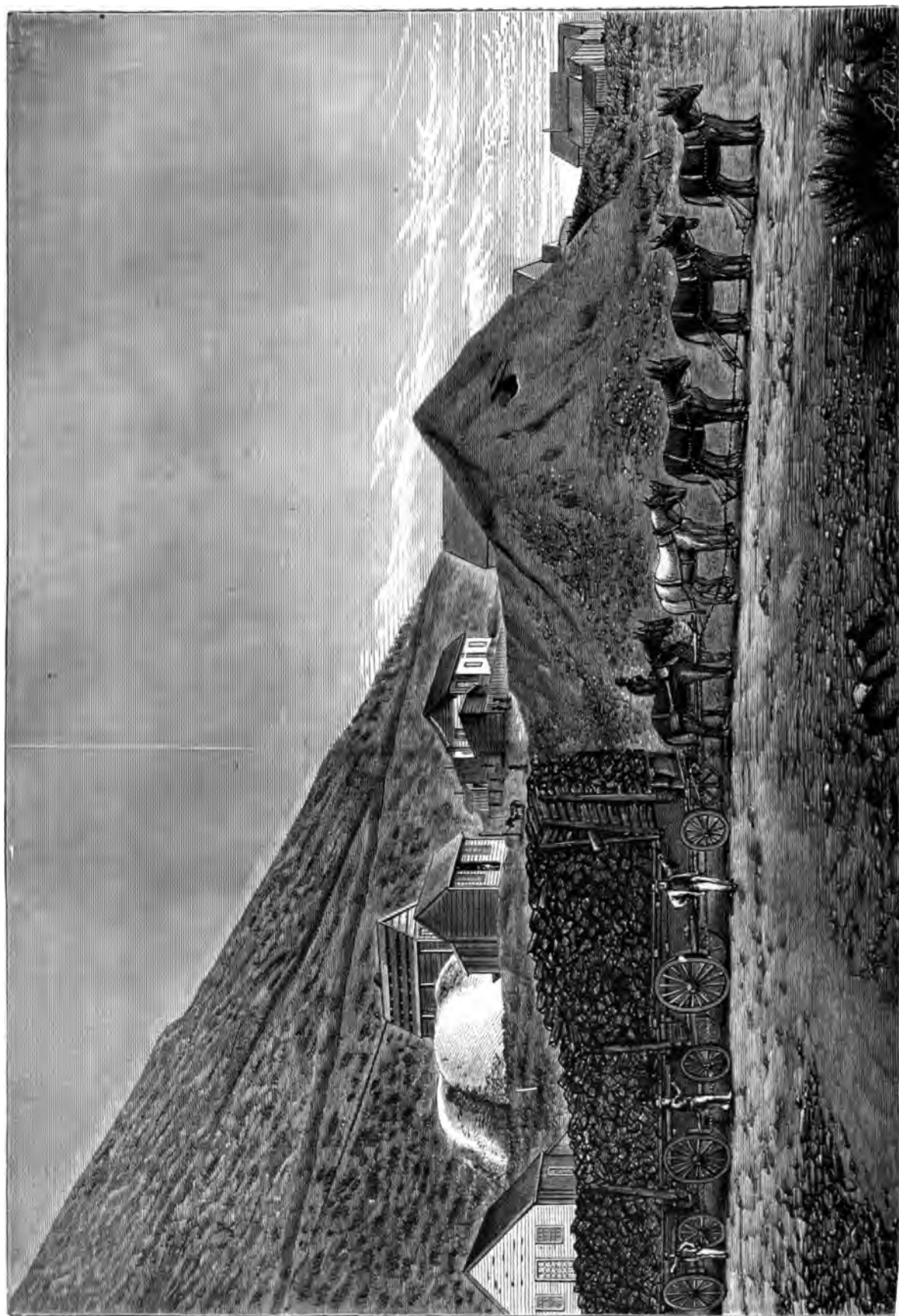
known how far this cave extends, but it has been explored over 4,000 feet, when a deep chasm prevented further exploration.

INDIAN LEGEND.—The Indians in this vicinity have a curious fear of this place, and cannot be tempted to venture any distance within its haunted recesses. They have a legend that "heap" Indians went in once for a long way and none ever returned. But one who ventured in many moons ago, was lucky enough to escape, with the loss of those who accompanied him, and he is now styled "Cave Indian." According to the legend he ventured in with some of his tribe and traveled until he came to a beautiful stream of water where dwelt a great many Indians, who had small ponies and beautiful squaws. Though urged to stay with this people, "Cave" preferred to return to sunlight. Watching his chances, when all were asleep he stole away, and, after great suffering, succeeded in reaching the mouth of the cave, but his people still live in the bowels of the earth.

The Indians firmly believe the story, and will not venture within the darkness. Another story is current among the people who live near by, which is, that the Mormons were once possessors of this cave, and at the time when they had the rupture with the United States Government, used it as a hiding place for the plate and treasures of the Church and the valuables of the Mormon elders. The existence of the cave was not known to the whites, unless the Mormons knew of it, until 1866.

A LITTLE HISTORY.—Before returning to the Railroad, let us make a few remarks regarding the mining features about the country at which we have been glancing. In the latter part of the summer of 1858, a party of prospectors from Mariposa, in California, crossed the Sierra Nevada mountains via Yo Semite to Mono Lake, then in Utah, but now in that part of the country set off to form Nevada. For three years the party worked placer mines and other gold along the various cañons and gulches extending eastward from the Sierras, which led others to continue prospecting further north, and who discovered Comstock Ledge. Other prospectors followed, and the discovery of rich veins in Lander, Esmeralda, Nye and Humboldt counties, and in the adjoining Territory of Idaho was the result. The great "unexplored desert" on the map was avoided until 1865 and 1866, when parties began to branch out and discover the rich argentiferous quartz and fine timber land extending along a series of parallel valleys from the Humboldt to the Colorado River. Several New York companies became interested in these discoveries, and erected a 20 Stamp Mill at Newark, 22 miles north of where Treasure City now stands, to work veins in the Diamond range. Across the valley opposite Newark, White Pine Mountain rises 10,285 feet. Here the "Monte Christo" mill was erected, at which a Shoshone Indian came one day with a specimen of better "nappias" than had yet been discovered, and, by his guidance, the rich mines discovered at Treasure Hill and the "Hidder Treasure" mine were located and recorded on the 14th of September, 1867. But aside from the production of mineral, along these mountain ranges, another source of wealth exists in the valleys extending through Nevada and Utah. We refer to that branch of business which has been gradually increasing, one which will bring a large revenue to the settlers along these valleys in stock-raising. Bunch-grass grows in abundance, and cattle are easily wintered and fattened, finding a ready market in the mining districts and westward to Sacramento and San Francisco.

Returning to Palisade, and passing on to the west,



WOOD-HAULING IN NEVADA. (See description page 185.)

one of the most noted points in the cañon is on the opposite side of the river, and is called the Devil's Peak, a perpendicular rock, probably 1,000 feet high, rising from the water's edge. In a cleft on the top-most peak are the remains of a gigantic bird's nest. What sort of birds made their eyrie here we do not pretend to know. From appearances, they belonged to an extinct species, or possibly to the condor family—the nest looks to be four or five feet across, built of brush, some of the sticks being quite large. Let us suppose that it forms a connecting link between the misty past and the busy present, and speculate on the age when gigantic birds existed; when the clear waters of the Humboldt were but filthy ooze; when the monsters of the early days held high carnival along the boiling, alimy Humboldt river. Then the monster birds sat in their eyrie, and pounced down upon some unlucky dozen-legged monster with a head just three times the lengths of its boneless body, and after depositing its unwieldy carcass on the rocks by their nest, feasted on it at their leisure. We may suppose all this, though these unsightly creatures which learned men tell of have passed away, and neither the railroad or the missionaries had aught to do with their leaving.

Rushing down the stream—passing the towering bluffs and castellated rocks, which, at first view, look like some old brown castle, forsaken by its founders, and left to ruin, desolation and decay—we cross the river on a fine Howe truss bridge; and from this point we shall keep on the southern side of the stream until we near Humboldt Lake, when we cross it again, and for the last time. The rocks are less lofty now, and break away from the river less abruptly.

CLURO—Is a flag station ten miles west of Palisade, reached just after emerging from the cañon. We now enter a more open country, with strips of meadow along the river's brink. Near this point is where the powder magazine of the railroad company exploded in 1883, while the road was building through the cañon. A number of the laborers were killed and others wounded.

North of the river, at the point on the opposite side, can be seen a peculiar formation, not seen elsewhere in the cañon. Where the road is cut through these points, they consist of gravel, sand and cement, having all the appearances of gold-bearing gravel-beds. It is an unmistakable water-wash, and not caused by volcanic wear. Fine layers of sand, from one to five feet thick, are interspersed through the gravel, showing where the water rested and the sediment settled.

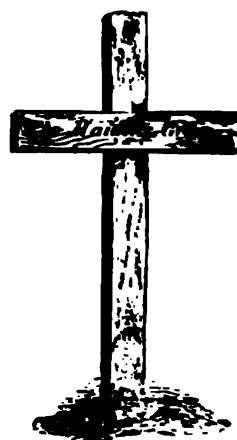
GRAVELLY FORD—One of the most noted points on the Humboldt river in early days, is near Cluro. Then the cañon through which we have just passed was impassable. The long lines of emigrant wagons could not pass through the mighty chasm, but were obliged to turn and toil over the mountains until they could descend into the valley again. Coming to this point on the south side of the river, they crossed and followed up a slope of the opposite hills; thence along the table-land, and from thence to the valley below. A few would leave the river lower down and bear away to the south, but the road was long and rough before they reached the valley above the cañon. There were and now are other fords on the river, lower down, but none were as safe as this. With sloping gravelly banks and a hard gravel bottom, it offered superior advantages to the emigrant. Hence it became a noted place—the point to which the westward bound emigrant looked forward with great interest. Here was excellent grazing for their travel-worn teams. Owing to these considerations, large bodies of emigrants were often encamped here for weeks. At times the river

would be too high, and they would wait for the torrent to subside. The Indians—Shoshones—knew this also, and many a skirmish took place between them and their white brothers, caused by mistaken ideas regarding the ownership of the emigrants' stock.

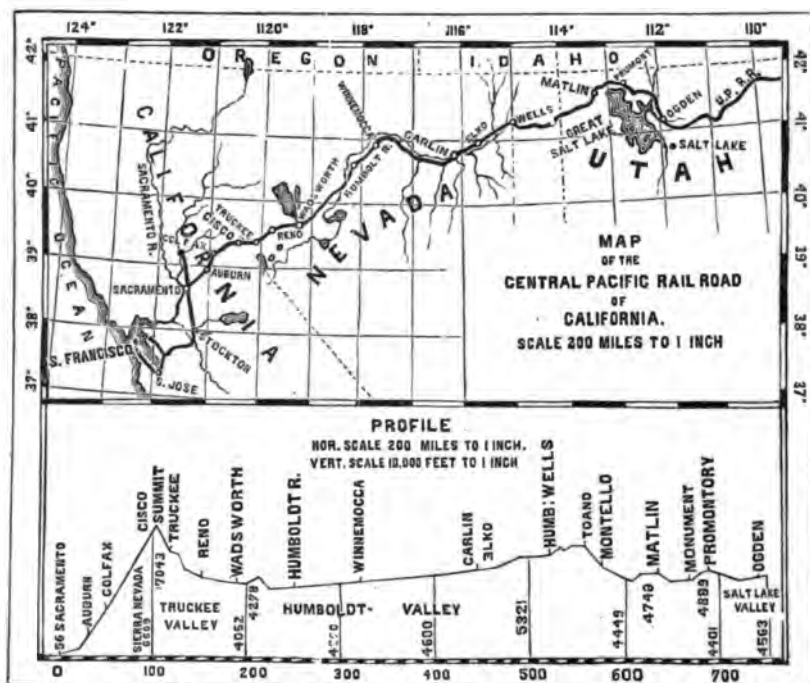
Connected with this place is an incident which, for the honor of the men who performed the Christian act, we will relate:

In the early times spoken of, a party of emigrants from Missouri were encamped here, waiting for the water to subside. Among these emigrants were many women and children, who were accompanying their male relatives to the land of gold. While here, an estimable young lady of 18 years fell sick, and despite the watchful care and loving tenderness of friends and kindred, her pure spirit floated into that unknown mist, dividing the real from the ideal, the mortal from the immortal. Her friends reared an humble head-board to her memory, and, in course of time—among the new life opening to them on the Pacific slope—the young girl's fate and grave were alike forgotten by all but her immediate relatives. When the advance guard of the Central railroad—the graders and culvert men—came to Gravelly Ford, they found the lone grave and the fast decaying head-board. The sight awoke the finer feelings of their nature and aroused their sympathies, for they were men, these brown, toil-stained laborers.

The "culvert men" (masons) concluded that it was not consistent with Christian usage to leave a grave exposed and undefended from the incursion of beasts of prey. With such men to think was to act, and in a few days the lone grave was enclosed with a solid wall and a cross—the sacred emblem of immortality—took the place of the old head-board. In the day when the final reckoning between these men and the recording angel is adjusted, we think that they will find a credit for that deed which will offset many little debit in the ledger of good and evil. Perhaps a fair spirit above may smile a blessing on their lives in recompense of the noble deed. The grave is on the south side of the road upon a low bluff. In October, 1871, the Supt. of the Division erected over it a fine large cross—upon one side is inscribed "THE MAIDEN'S GRAVE," on the other, her name, "Lucinda Duncan."



Passing on we cross narrow patches of meadow land, and wind around the base of low hills until we reach a broad valley. Across the river to the northward can be seen the long, unbroken slopes which stretch away until they are lost in that cold blue line—the Idaho Mountains—which rise against the northern sky. Behind that gray



old peak, which is barely discernible, the head waters of the North Fork of the Humboldt break away when starting on its journey for the main river. Farther to the left, and nearer, from among that darker clump of hills Maggie's Creek finds its source.

BE-O-WA-WE—Is reached just after passing through Copper Cañon, eight miles from Cluro.

The Cortes mines and mills are situated about 35 miles south of this station, with which they are connected by a good road. At this point the Red Range throws a spur nearly across the valley, cutting it in two. It looks as though the spur extended clear across at one time, damming up the waters of the river, as at the Palisades. The water-wash far up the hill-side is in evidence of the theory that such was once the case, and that the waters cut this narrow gorge, through which they speed along, unmindful of the mighty work done in former years, when the resistless current "forced a highway to the sea," and drained a mighty lake, leaving in its place green meadows.

Here, on this red ridge, is the dividing line between the Shoshones and the Piutes, two tribes of Indians who seemed to be created for the express purpose of worrying emigrants, stealing stock, eating grasshoppers, and praying on themselves and everybody else. The Shoshones are very degraded Indians, and until recently, were like the Ishmaelites or Pariahs of old—their hand was against every man, and every man's hand was compelled, in self-defence, to be against them until they became almost unable to commit depredations, and could make more by begging than they could by stealing. At this point nature has so fortified the entrance of the valley that a handful of determined rangers could hold the entrance against any force the savages could bring against them. The term Be-o-wa-we signifies gate, and it is literal in its significance.

After leaving Be-o-wa-we, we pass through the gate, and wind along by the hillside, over the low mead-

ows, which here are very narrow. In places the short elbows of the tortuous stream wash the rock-fills and slopes on which rests the road-bed. The "bottom" is broad, but is covered with willows, with the exception of the narrow meadows spoken of. Amid these willows the stream winds and twists about through innumerable sloughs and creeks, as though undecided whether to leave this shady retreat for the barren plains below. Perhaps the traveler will see a flock of pelicans disporting in the waters on their return from their daily fishing excursion to Humboldt Lake. These birds, at certain seasons of the year, are to be found here and along the river, for about 20 miles below, in great numbers. They build their nests in these willow islands and rear their young undisturbed, for even an Indian cannot penetrate this swampy, treacherous fastness. Every morning the old birds can be seen taking their flight to Humboldt Lake, where, in its shallow waters, they load themselves with fish, returning towards night to feed their young and secrete themselves in

their hiding places.

SHOSHONE—Is ten miles west of Be-o-wa-we. Elevation 4,636 feet. Across the river to the right is Battle Mountain, which rises up clear and sharp from the river's brink. It seems near, but between us and its southern base is a wide bottom land and the river, which here really "spreads itself." We saw the same point when emerging from Be-o-wa-we, or "the gate," and it will continue in sight for many miles.

This mountain derives its name from an Indian fight, the particulars of which will be related hereafter. There are several ranges near by, all bearing the same general name. This range, being the most prominent, deserves a passing notice. It lies north of the river, between the Owyhee Range on the north and the Reese River Mountains on the south. Its base is washed by the river its entire length—from 50 to 75 miles. It presents an almost unbroken surface and even altitude the entire distance. In places it rises in bold bluffs, in others it slopes away from base to summit, but in each case the same altitude is reached. It is about 1,500 feet high, the top or summit appearing to be table-land. Silver and copper mines have been prospected with good results.

Behind this range are wide valleys, which slope away to the river at either end of the range, leaving it comparatively isolated.

Opposite to Shoshone, Rock Creek empties its waters into the Humboldt. It rises about 40 miles to the northward, and is bordered by a beautiful valley about four miles wide. The stream is well stocked with fish, among which are the mountain trout. In the country around the head-waters of the stream is found plenty of game of various kinds, including deer and bear.

Copper mines of vast size and great richness are found in the valley of Rock Creek, and among the adjoining hills. Whenever the copper interest becomes of sufficient importance to warrant the opening of



MIRROR LAKE AND REFLECTIONS, YO-SEMITE VALLEY, CAL.

these mines, this section will prove one of great importance.

Leaving Shoshone, we pursue our way down the river, the road leading back from the meadow land and passing along an upland, covered with sage-brush. The hills on our left are smooth and covered with a good coat of bunch grass, affording most excellent pasturage for stock, summer and winter. There are springs of good water in the cañons, where is also obtained considerable wood, pine and cedar. Now we find broad meadows again, upon which are cut enormous quantities of hay, most of which is baled for transportation to the mines.

ARGENTA—Is eleven miles further west. This was formerly a regular eating station and the distributing point for Austin and the Reese River country; now the regular through passenger trains from the east and west simply meet and pass.

PARADISE VALLEY lies on the north side of the river, nearly opposite this station. It is about 60 miles long by 8 wide, very fertile and thickly settled.

EDEN VALLEY—the northern division of Paradise Valley—is about twenty miles long and five wide. In general features it resembles the other, the whole comprising one of the richest farming sections in the State. Camp Scott and Santa Rosa are situated in the head of the valley, and other small towns have sprung up at other points.

PARADISE CREEK is a clear, cold mountain stream, upon which are a number of grist and saw mills. It rises in the Owyhee mountains and flows through these valleys to the Humboldt river. Salmon trout of enormous size are found in the stream and its tributaries. Bear, deer, silver-gray foxes, and other game, abound on the hills which border the valley.

These valleys—the Humboldt for 50 miles east and west—and the adjoining mountains—are the stock-raisers' paradise. Some very large herds and numerous small ones have been brought in to this country within the past three years.

BATTLE MOUNTAIN—Twelve miles west of Argenta, is a regular eating station, where trains from the east and west stop 30 minutes for dinner. It is one of the best on the road. *Measure for Measure*, a weekly paper, is published here.

This is now the distributing point for the Battle Mountain, Galena and Copper Cañon mining camps in the mountains just south of here, as well as for Austin and the Reese River country.

The North-western Stage Company run a daily line of stages from here to Battle Mountain mines, 7 miles; to Galena, 12 miles; and to Austin, 90 miles. A fast freight line runs to the same sections daily.

The principal mining districts tributary to this station lie to the southward. In connection with them we will speak of the general features of the country in which these districts are located.

AUSTIN—The county seat of Lander County, and its principal town, is located near the summit of the Toiyabe Range, 90 miles south of the railroad, and contains about 1,500 inhabitants. It is connected by stage with Hamilton, Cortez, Belmont, and intervening towns. The *Reese River Reveille*—daily, is published at this place.

The Toiyabe Mountains extend north and south through the country, bearing many and rich veins of silver ore. Many mining districts have been laid off and prospected with very flattering results. The general character of the ore is refractory, and requires desulphurization. The lodes, as a general thing, are small, especially in the Reese River district, but more

valuable on that account, as the mineral is more concentrated.

REESE RIVER DISTRICT—Is the principal mining district in Lander County. Silver ore was first discovered in this district by W. M. Talcott, in May, 1862. At that time he was engaged in hauling wood from the hill-side, where the city of Austin now stands, to the stage station at Jacob's Springs, when he discovered a metal-bearing quartz vein. He carried some of the rock to the station, where it was examined and found to contain silver. The discoverer located the vein, giving it the name of Pony. The district was laid off, enclosing an area of 70 miles east and west by 20 miles north and south, to which the name of Reese River was given. As soon as it became known prospectors flocked in, and the country was pretty thoroughly prospected during 1862 and 1863. Many veins were located, some of them proving very valuable. Mills were erected at different points, and from that time forward the district has been in a prosperous condition. The district, as originally mapped out, exists no longer, having been subdivided into several smaller ones.

Other districts, including Washington, Eureka, Kinsley, Cortez and others, located in this section of the State, containing noted veins of silver and copper ores, are tributary to Austin in trade. This section of the State is now the most prosperous mining portion. White Pine, Reese River and other noted mining localities are located within easy distance of the railroad, by which they are now supplied with machinery, merchandise, etc., at rates far below the cost of such articles in less favored localities. The result of this has been the introduction of more and better machinery, the reduction in cost of milling ores, and the opening and working of veins of lower grade ores, which could not be profitably worked when high milling prices ruled.

The Diamond, Dunn Glen, Grass Valley and Humboldt mining districts are tributaries to Battle Mountain station. In all of these districts stamp mills and smelting furnaces are in operation.

GRASS VALLEY—From which the district derives its name, is about five miles wide, and extends from the opening of Reese River, as seen to the south, to Humboldt Lake, some 50 miles to the westward.

In the upper end of Grass Valley are several hot springs, strongly impregnated with sulphur and other minerals, but they attract no particular attention, being too common to excite curiosity.

On leaving the station we skirt the base of the mountains to the left, leaving the river far to our right over against the base of Battle Mountain. We are now in the widest part of the valley, about opposite the big bend of the Humboldt.

After passing the palisades the river inclines to the south for about 30 miles, when it sweeps away to the north, along the base of Battle Mountain, for 30 miles further; then turning nearly due south, it follows that direction until it discharges its waters in Humboldt Lake, about 50 miles by the river course from the great elbow, forming a vast semi-circle, washed by its waters for three fourths of the circumference. This vast area of land, or most of it, comprising many thousand acres of level upland, bordered by green meadows, is susceptible of cultivation when irrigated. The sage-brush grows luxuriantly, and where the alkali beds do not appear the soil produces a good crop of bunch-grass. The road takes the short side of the semi-circle, keeping close to the foot of the isolated Humboldt Spur. On the opposite side of the river, behind the Battle Mountain Range, are several valleys watered by the mountain streams, and affording a large area of first class farming land. Chief among



SUMMIT OF THE SIERRA NEVADA MOUNTAINS—10,000 FEET HIGH.

there is **QUINN'S VALLEY**, watered by the river of that name. The arable portion of the valley is about 75 miles long, ranging in width from three to seven miles. It is a fine body of valley land, capable of producing luxuriant crops of grain, grass or vegetables. The hills which enclose it afford excellent pasturage. Timber of various qualities—spruce and pine predominating—is found in the gulches and ravines of the mountains. Game of different kinds is abundant. The Indians claim this country, and would worry settlers if they could.

QUINN'S RIVER, which flows through this valley, is a large stream rising in the St. Rosa hills of the Owyhee range, about 150 miles distant. From its source the general course of the river is due south for about 80 miles, when it turns and runs due west until it reaches Mud Lake. During the summer but little, if any, of its waters reach that place, being absorbed by the barren plain which lies between the foot-hills and the Humboldt River. Near the head waters of Quinn's River the **CROOKED CREEK**, or Antelope, rises and flows due north for about 50 miles, when it empties its waters into the Owyhee River. The head waters of the streams which run from the southern slope of the Owyhee mountains are well supplied with salmon and trout and other varieties of fish. Quail, grouse and four-footed game are abundant in the valleys and timbered mountains. Near the settlements the Indians are friendly, but the hunter and prospector must watch them as soon as he leaves the protection of the towns.

PIUTE—Is five miles west of Battle Mountain Station—but passenger trains seldom stop.

RESE RIVER VALLEY joins the Humboldt near Piute, coming in from the south. It is very diversified in feature, being very wide at some points—from seven

to ten miles—and then dwindling down to narrow strips of meadow or barren sand. Some portions of the valley are susceptible of cultivation, and possess an excellent soil. Other portions are barren sand and gravel wastes, on which only the sage-brush flourishes. This valley is also known by old emigrants as "Whirlwind Valley," and passengers will frequently see columns of dust ascending skywards. Reese River, which flows through this valley, rises to the south, 180 to 200 miles distant. It has many tributaries, which find their source in the mountain ranges that extend on either side of the river its entire length. It sinks in the valley about 20 or 30 miles before reaching the Humboldt. During the winter and spring floods the waters reach the Humboldt, but only in very wet times.

INDIAN BATTLE—Near where Reese River sinks in the valley was fought the celebrated battle between the Whites and Indians, settlers and emigrants—which gave the general name of Battle Mountain to these ranges. A party of marauding Shoshone Indians had stolen a lot of stock from the emigrants and settlers who, banded themselves together and gave chase. They overtook them at this point and the fight commenced. From point to point, from rock to rock, down to the water's edge they drove the redskins, who, finding themselves surrounded, fought with the stubbornness of despair. When night closed in the settlers found themselves in possession of their stock and a hard fought field. How many Indians emigrated to the happy hunting grounds of the spirits no one knew, but from this time forward the power of the tribe was broken. It is supposed that a hundred or more braves went off in pursuit of shadows, as they were never more seen. The following spring, hunters found many skeletons in the hills, supposed to be those of the wounded braves who crawled away during the fight.

COIN—A flag station, is eight miles west of Piute.

STONE HOUSE—Seven miles further. This place was once an old trading post, strongly fortified against Indian attacks. The Stone House stands at the foot of an abrupt hill, by the side of a spring of excellent water. The comb of the ridge is divided lengthwise by parallel ridges of rock, which form a deep chasm on the crest. From the Stone House a retreat to this gorge was easy, being only about 100 yards distant, and once there, 20 men could successfully defend themselves against all the the Indians in the country. A living spring in the gorge furnishes water, and there is but one inlet or outlet, and that is by the house at the foot of the hill.

HOT SPRINGS: Soon after leaving the station, by looking away to the south eight miles, can be seen columns of steam, which indicate the presence of another of the many "hot springs" which abound in the "Great Basin."

If you do not behold the steam—for the springs are not always in active operation—you will behold a long yellowish, red line, stretching for a full half mile around a barren hill-side. From this line boiling muddy water and sulphuric wash descends the hill-side, desolating everything in its course, its waters escaping through the bogs of the valley.

Sometimes for hours these springs are inactive, then come little puffs of steam, then long and frequent jets, which often shoot 30 feet high. The waters are very hot. Woe to the unlucky hombre who gets near and to the windward of one of these springs, where it sends forth a column of spray, steam and muddy sulphur water from 20 to 30 feet in height. He will need a change of clothes, some simple cerate, a few days rest, and the prayers of his friends—as well as of the congregation. There are over 100 of these spurting, bubbling, sulphuric curiosities around the hills in this vicinity. The general character of all are about the same.

There are a great many theories regarding these springs—what causes the heat? &c. Some contend that the water escapes from the regions of eternal fires, which are supposed to be ever burning in the centre of the globe. Others assert that it is mineral in solution with the water which causes the heat. Again, irreverent persons suggest that this part of the country is but the roof of a peculiar place to which they may well fear their wicked deeds may doom them in the future.

Leaving the old stone-house we continue along the base of the hills. To the right the bottom lands are from 8 to 10 miles wide; the soil is sand and strong alkaline, covered with sage-brush and grease-wood.

IRON POINT—Is thirteen miles west, where passenger trains seldom stop. After leaving the stations the bluffs draw close and high on each side, with the river on our right, with now and then a narrow strip of meadow land. After passing through and over numerous deep cuts and fills for three miles, the cañon widens into a valley again.

GOLCONDA—Twelve miles west, is in the Gold Run mining district, where rich silver mines have been discovered. The Golconda mine and mill are situated three miles south, in a part of the Reese River range, which contains, besides the Golconda, the Shepherdson, Cumberland, Home Ticket, Register, and many others. The district was discovered and organized in October, 1867.

On the north side of the river, east of this station, and distant only about 12 miles, some rich discoveries of silver and copper ore have recently been made, but

the claims have not yet been "prospected" to establish their extent and value.

Proceeding on west, the same general landscape appears—a wide sage-brush plain and meadows beyond.

TULE—Is an unimportant station nine miles from Golconda. Passing on down the valley hills on our left, drawing still closer, in some spurs reaching to the track. On our left is in the hills, from whence a cañon opens on the road side. It is about five miles long, contains many springs.

Here were discovered the first mines in Nevada. In the spring of 1860, Mr. Barbier herding stock for Coperning, discovered them, and from this beginning, the prospecting was carried on with vigor, which resulted in locating many valuable bodies of ore—some of which yield in the smelting and milling process as high as \$300 per ton.

WINNEMUCCA—Six miles west, is the terminus of the Humboldt and the Truckee division. The station was named in honor of Chief of the Piute Indians who formally lived here. Elevation 4,331 feet. Distance from Omaha to San Francisco 463 miles.

Winnamucca is composed of what is known as old and new towns, which, together, contain about 1,000 inhabitants. The old town is situated on a hill directly fronting the station, about 300 yards distant. Though so near, it is hid from sight until you reach the bank and look over. It contains buildings of all sorts. The *Humboldt Register*, a paper, is published here. The new town of Winnamucca is built along the railroad, and contains many buildings, including the company's shops, four hotels, chief of which is the Railroad Hotel.

The buildings with few exceptions, are of a substantial manner, as are all the shops and houses. and like most of the railroad towns, more ornamental. The company have located here a division work and repair shops, including a round-house. They are built of wood in a

The Northwestern Stage Company runs stages from this point to Boise City, Idaho, 265 miles, fare \$50; to Silver City, \$40; to Camanche, \$15. Also a line to Paradise \$5. Freight trains run from this station to a number of towns, and to the mining camps in the adjacent country.

There is considerable mining going on near Winnemucca, and quite a number of furnaces are in operation, all of which are doing well. In the Winnemucca Range, many silver-bearing ore have been located which will give a fair return for working.

MUD LAKE—Is about 50 miles west of Golconda, across the Humboldt, which here turns to the north. It is one of those peculiar lakes found in the State of Nevada. The lake receives the waters of the Reese River and several smaller tributaries during the season. It has no outlet, unless its contents are carried off by the wind. Pyramid and Winnemucca Lakes could be compared to it. It is about 50 miles long by 20 wide; in summer it dwindles down to a small pool of land and a large stagnant pool.

BLACK ROCK—A noted landmark in this country, is situated at the head of the Humboldt, rocky headland, rising about 1,800 feet above the lake, bleak, bare, and extending for several miles.

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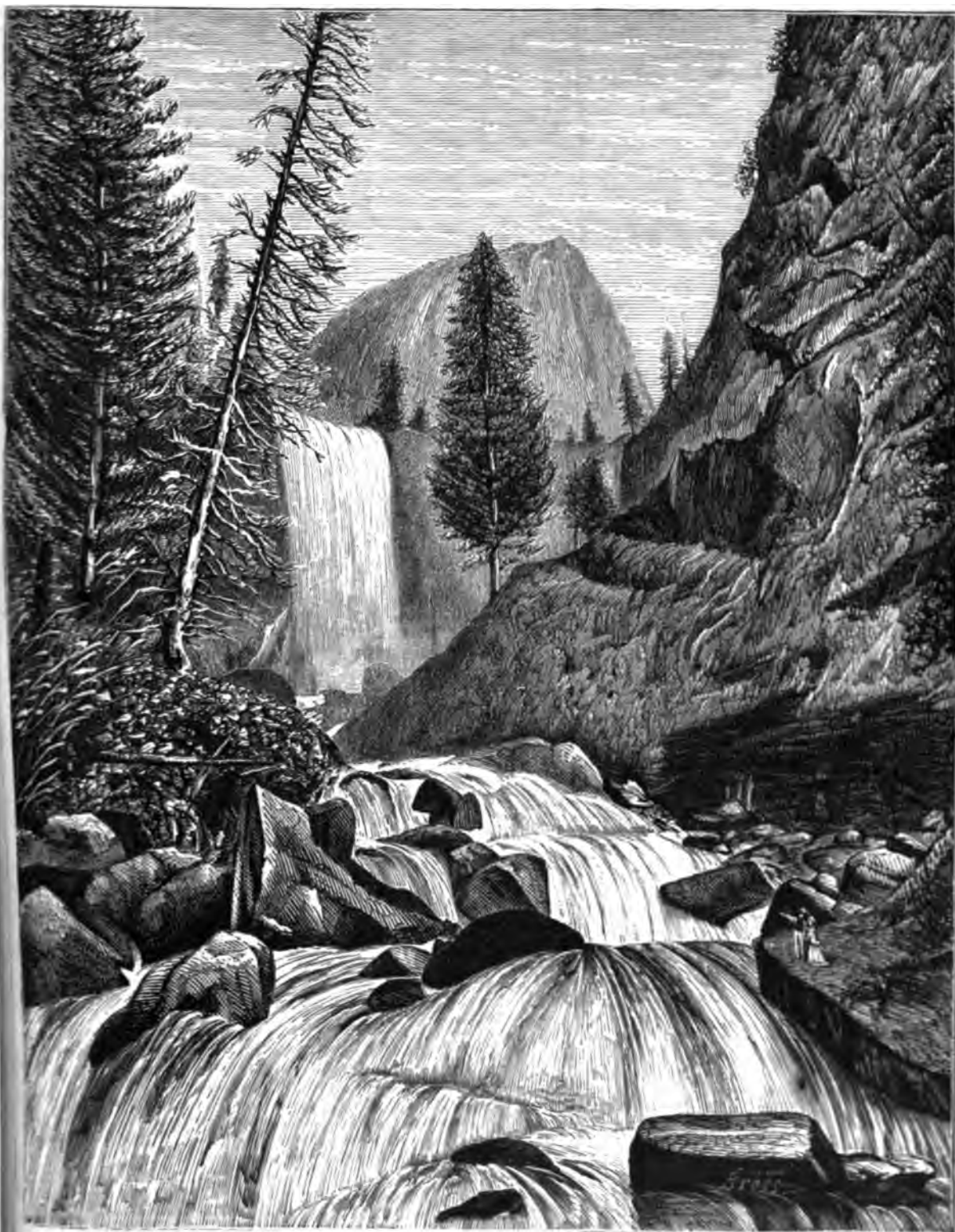
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NEVADA FALL, YO-SEMITE VALLEY, CALIFORNIA.

is an isolated peak in this desert waste, keeping solitary guard amid the surrounding desolation.

PYRAMID LAKE—Is about 20 miles south of Mud Lake, which receives the waters of Truckee River. It is about 30 miles long by 20 wide during the wet seasons. The quality of the water is superior to that of Mud Lake, though the water of all these lakes is more or less brackish.

WINNEMUCCA LAKE—A few miles east of Pyramid Lake, is another stagnant pond, about 15 miles long by 10 wide. This lake is connected with Pyramid Lake by a small stream, and that in turn with Mud Lake, but only during high water, when the streams flowing into them cause them to spread far over the low sandy waste around them.

Returning to Winnemucca we resume our journey. The road bears away to the southward, skirting the low hills which extend from the Winnemucca Mountain toward Humboldt Lake. The general aspect of the country remains unchanged.

ROSE CREEK—Ten miles distant, is the next station.

RASPBERRY CREEK—Is ten miles further. Both the last named are unimportant stations where passenger trains seldom stop. They are each named after creeks near the stations, but *why* one should be Rose Creek and the other Raspberry Creek, we never could learn. We saw no indications of roses or raspberries at either creek, but the same monotonous aspect. Sage-brush, and now and then an alkali bed, greet the eye on the right hand with the low brown hills on our left.

MILL CITY—Is eight miles west of Raspberry. Stages leave this station on arrival of the cars for Unionville, a thrifty and promising silver mining town, 18 miles distant to the southward.

HUMBOLDT—Eleven miles from Mill City, is a regular eating station where trains for the West stop 30 minutes for supper, and those for the East the same time for breakfast. The meals are as good as at any station on the road.

Here will be found the clearest, coldest mountain spring water along the road, and viewing it as it shoots up from the fountain in front of the station, one quite forgets the look of desolation observable on every side, and that this station is on the edge of the the great Nevada desert.

It is worth the while of any tourist who wishes to examine the wonders of nature to stop here and remain for a few days at least—for one day will not suffice—although to the careless passer-by the country appears devoid of interest. Those who wish to delve into nature's mysteries can here find pleasant and profitable employment. The whole sum of man's existence does not consist in mines, mills, merchandise and money. There are other ways of employing the mind besides bending its energies to the accumulation of wealth; there is still another God, mightier than Mammon, worshipped by the few. Among the works of His hands—these barren plains, brown hills and curious lakes—the seeker after knowledge can find ample opportunities to gratify his taste. The singular formation of the soil, the lava deposits of a by-gone age, the fossil remains and marine evidences of past submersion, and, above all else, the grand and unsolved problem by which the waters that are continually pouring into this great basin are prevented from overflowing the low land around them, are objects worthy of the close attention and investigation of the scholar and

philosopher. From this station the noted points of the country are easy of access.

Here one can observe the effects of irrigation on this sandy, sage-brush country. The garden at the station produces vegetables, corn and fruit trees luxuriantly, and yet but a short time has elapsed since it was covered with a rank growth of sage-brush.

About seven miles to the north-east may be seen Star Peak, the highest point in the Humboldt Range, on which the snow continues to hold its icy sway the whole year around. Two and one half miles south-east are the Humboldt mines—five in number—rich in gold and silver. The discovery of a Borax mine near the station has been recently reported. Five miles to the north-west are the Lanson Meadows, on which are cut immense quantities of as good grass as can be found in the country.

Leaving Humboldt about one mile distant we pass a SULPHUR MINE on the right—near the road—where that mineral is said to be obtained in nearly a pure state, and in unlimited quantities. We did not visit the mine—though it lies in plain view of the road—memories of early teachings forbidding it. No, thankee, we don't want any sulphur in ours.

RYE PATCH—Is reached eleven miles from Humboldt. The reader might consider, from the name, that some settler had tried the experiment of raising rye at this point, but the only attempt so far as heard from, has been *raising rye whiskey* to the mouth, and leaving nature to raise the grain. On the moist ground around this place patches of wild rye grow luxuriantly. To the left of the road, against the hill-side, is another hot spring, over whose surface a cloud of vapor is generally floating. The medicinal qualities of the water are highly spoken of by those who never tried them, but we could learn of no reliable analysis of its properties. A cabin has been erected on the green slope below the spring, as evidence that the property has been claimed.

About ten miles from this station, silver-bearing quartz has been discovered. Several lodes have been located, and are now being worked. A mill has been erected at the foot of Humboldt Lake, and thither the ores are taken. As far as the veins have been worked the returns have been very encouraging.

OREANA—Is reached after passing over a rough, uneven country for eleven miles. To the west the long gray line of the desert is seen cheerless and desolate. We draw near the river again and catch occasional glimpses of narrow, green meadows, with here and there a farm house by the river's side. Five miles from the station we cross a Howe truss bridge over the river, which here winds away on our left until it reaches the lake a few miles beyond. The current and volume of the river has been materially reduced since we left it at the head of the Big Bend.

LOVELOCKS—Eleven miles from Oreana, derives its name from an old meadow ranch which is situated near, upon which, during the summer, large quantities of hay are cut and baled for market. Passing on over alkali beds, sand-hills and sage-brush knobs, the meadow-lands along the bottom get narrower, and finally fade from sight altogether, and we find ourselves fairly out on the

GREAT NEVADA DESERT.

This desert occupies the largest portion of the Nevada Basin. In this section, to the northward, is Mud Lake, Pyramid Lake, Humboldt, Winnemucca and Carson Lakes, which receives the waters of several large rivers and numerous small creeks. As we have



INTERIOR VIEW OF SNOW SHEDS ON THE SIERRA NEVADA MOUNTAINS, (see page 126.)

before stated, they form a portion of that vast desert belt which constitutes the central area of the Nevada Basin. The desert consists of barren plains destitute of wood or water, and low, broken hills, which afford but little wood, water or grass. It is a part of that belt which can be traced through the whole length of the State, from Oregon to Arizona, and far into the interior of that Territory. The Forty Mile Desert, and the barren country east of Walker's Lake, are part of this great division which extends southward, continued by those desolate plains, to the east of Silver Peak, on which the unfortunate Buel party suffered so terribly in their attempt to reach the Colorado River. Throughout this vast extent of territory the same characteristics are found—evidences of recent volcanic action—alkaline flats, basalt rocks, hot springs and sandy wastes abounding in all portions of this great belt.

Although this desert is generally spoken of as a sandy waste, sand does not predominate. Sand hills and flats occur at intervals, but the main bed of the desert is lava and clay combined—one as destitute of the power of creating or supporting vegetable life as the other. The action of the elements has covered these clay and lava deposits with a coarse dust, resembling sand, which is blown about and deposited in curious drifts and knolls by the wind. Where more of sand than clay is found, the sage-brush occasionally appears to have obtained a faint hold of life, and bravely tries to retain it.

GRANITE POINT—A flag station, is nine miles from Lovelock's. Passing on, an occasional glimpse of Humboldt Lake, which lies to the left of the road, can be obtained.

BROWN'S—Seven miles further, is situated about midway, the northern shore directly opposite

HUMBOLDT LAKE.

This body of water is about 85 miles long by ten wide, and is in reality a widening of the Humboldt River, which after coursing through 350 miles of country, empties its waters into this basin. Through this basin the water flows to the plains beyond by an outlet at the lower end of the lake, uniting with the waters of the sink of Carson Lake, which lies about ten miles distant. During the wet season, when the swollen rivers have overflowed the low lands around the lakes and united them, they form a very respectable sheet of water, about eighty miles or more in length, with a large river emptying its waters into each end, and for this vast volume of water there is no visible outlet.

Across the outlet of Humboldt Lake a dam has been erected, which has raised the water about six feet, completely obliterating the old emigrant road which passed close to the southern shore. The necessities of mining have at length utilized the waters of the lake, and now they are employed in turning the machinery of a quartz mill. In the lower end of the lake is an island—a long narrow strip of land which extends up the lake and near the northern shore. Before the dam was put in the outlet, this island was part of the main land. There are several varieties of fish in the lake, and an abundance of water-fowl during portions of the year.

Leaving Brown's, and passing along the shore of the lake for a few miles an intervening sand ridge hides the lake from our sight, and about eight miles west we obtain a fine view of the Sink of Carson Lake, which is a small body of water lying a few miles north of the



Constructing Snow Sheds, Sierra Nevada Mountains. (See page 126.)

main Carson Lake, and connected with that and the Humboldt during the wet season.

CARSON LAKE lies directly south of Humboldt Lake, and is from 20 to 25 miles long, with a width of ten miles. In the winter its waters cover considerable more area, the Sink and lake being one.

The Carson River empties into the southern end of the lake, discharging a large volume of water. What becomes of the vast body of water continually pouring into these lakes? is the problem yet unsolved. Some claim the existence of underground channels, and terrible stories are told of unfortunate people who have been drawn down and disappeared forever. These stories must be taken with much allowance. If underground channels exist, why is it that the lakes, which are 10 to 15 miles apart in low water, are united during the winter floods? And how is it, that when the waters have subsided from these alkaline plains, that no opening for these channels are visible? The only rational theory for the escape of the water is by evaporation. Examine each little stream bed that you meet with;

you find no water there in the summer sink holes, yet in the winter their full until they reach the main river. The sun is so powerful on these lava summer that the water evaporates as it escapes from the cooling sink holes. By actual experiment it demonstrated that at Carson and E. Lakes the evaporation of water is the summer, to six inches every 24 hours. In the winter, when the atmosphere is humid, evaporation is less, consequently the waters spread over a larger area.

CARSON RIVER, which gives its name to the lake, rises in the eastern slope of the Sierra Nevada mountains, south of Lake Tahoe and opposite the head waters of the American River. From its source its mouth is about 150 to 200 miles by its course. From its source it runs about due north for about 75 miles, turns to the east, and follows the same direction until it enters the lake.

Under the general name of Carson Valley, the land bordering the river has been celebrated as being one of the best farming sections in the State. The towns of Carson City and Genoa are situated in the valley, though that portion of Carson City is frequently designated as Eagle Valley. The upper portion of Carson to the foot-hills, is very fertile and yields handsome crops of vegetables. Irrigation is necessary to insure a good yield. In some portions the small areas are successfully cultivated, and on the larger lands an abundant crop of grass is raised. The valley is thickly settled, the land being mostly occupied. Southwest of the head waters of Carson is the head waters of Walker's River from its source. The west fork of Walker's River is within a few miles of the eastern end of the Carson. The east fork of Walker's River runs due north until joined by the west fork, when the course of the river turns to the east for about forty miles, when it turns to the south, following that direction until it reaches Walker's Lake, about 100 miles south of the sink of the Carson, and traversed in its tortuous course about 150 miles.

In the valleys, which are found at intervals along the rivers, occasional spots of arable land are found, but as an agricultural country the valley of Walker's River is not a success.

WALKER LAKE is about 45 miles long by 15 miles wide. Like all the lakes in the basin it has no outlet. The water is brackish and strongly impregnated with alkali. The general characteristics of the other lakes in the great basin belong to this also; the development of one embracing all points belonging to the others.

WHITE PLAINS—Is twelve miles long. As indicated by the name, the plain is entirely around the station are white with alkali beds of which slope away to the sinks of Carson and Humboldt lakes. No vegetation meets the eye. Gazing on the vast expanse of dirty white alkali, the sun's rays seem to fall perpendicularly down on a barren scene, burning and withering, as though it would crush out any attempt which nature might make to introduce vegetable life.

The water to fill the big tank at the station is pumped from the "Sink" by means of a stationary engine, which is situated about midway between the station and the Sink.

About eight miles south a Borax mine has been developed and works erected at this station for refining. To the northward—five miles—rich veins of copper ore are being worked, and large quantities shipped to San Francisco.

MIRAGE—Is seven miles from White Plains. This station is named for that curious phenomenon, the Mirage (Meerazh) which is often witnessed on the desert. In early days the toil-worn emigrant, when urging his weary team across the cheerless desert, has often had his heart lightened by the sight of clear running streams, waving trees and broad, green meadows, which appeared to be but a little distance away. Often has the unwary traveler turned aside from his true course and followed the vision for weary miles, only to learn that he had followed a phantom, a will-o'-the-wisp.

What causes these optical delusions no one can tell, at least we never heard of a satisfactory reason being given for the appearance of the phenomenon. We have seen the green fields, the leafy trees and the running water; we have seen them all near by, as bright and beautiful as though they really existed—where they appeared to—in the midst of desolation, and we have seen them vanish at our approach. Who knows how many luckless travelers have followed these visions, until overcome with thirst and heat they laid down to die on the burning sands, far from the cooling shade of the trees they might never reach; far from the music of running waters, which they might hear no more.

Onward we go, reclining on the soft cushions of the elegant palace car, thirty miles an hour; rolling over the alkali and gray lava beds, scarcely giving a thought to those who, in early days, suffered so fearfully while crossing these plains, and, perchance, left their bones to bleach and whiten upon these barren sands.

HOT SPRINGS—Eight miles west of Mirage. Here, to the right of the road, can be seen more of these bubbling, spouting curiosities—these escape pipes, or safety valves for the discharge of the superabundant steam inside the globe, which are scattered over the great basin. Extensive salt works are located at this station, from which a car-load or more of salt is shipped daily. The salt springs are about four miles west of the station.

The Saxon American Borax Co. have erected works here which cost about \$200,000. They are situated a half mile south of the station, in plain view.

Passing on, we find no change to note, unless it be that the beds of alkali are occasionally intermixed with brown patches of lava and sand. A few bunches of stunted sage-brush occasionally break the monotony of the scene. It is worthy of notice that this hardy shrub is never found growing singly and alone. The reason for it is evident. No single shrub could ever maintain an existence here. It must have help; consequently we find it in clumps for mutual aid and protection.

DESERT—Is eleven miles from Hot Springs. Elevation 4,017 feet. This is, indeed, a desert. In the next six miles we gain about 100 feet altitude, pass Two Mile Station, descend 82 feet in the next two miles, and arrive at

WADSWORTH—This town is situated on the east bank of the Truckee River and the western border

of the desert. It is built of wood, and contains about 250 inhabitants.

The division workshops are located here, and consist of a round-house of 20 stalls, car, machine and blacksmith shops.

Freight is re-shipped at this point for Austin, Fort Churchill, and a large scope of country south.

The Pinte Indian Reservation is situated about eighteen miles to the northward of the station.

Pine Grove Copper mines lie six miles south of the town. They attract little attention, that mineral not being much sought after. Ten miles south are the Desert Mines, which consist of gold-bearing quartz lodes. Some of the mines there are considered very rich. Ninety miles south, at Columbus, are located the famous Borax mines of Nevada, said to be very rich.

THE TRUCKEE RIVER is crossed on a Howe truss bridge soon after leaving Wadsworth.

This stream rises in Lakes Tahoe and Donner, which lie at the eastern base of the Sierras, about 80 miles distant. From its source in Lake Tahoe, the main branch runs north for about 12 miles, when—near Truckee City—it unites with Little Truckee, the outlet of Donner Lake, and turns to the east, following that course until it reaches the Big Bend, thence north for about 25 miles, when it discharges its waters into Pyramid Lake.

The level lands bordering the Truckee consist mostly of gravelly upland covered with sage-brush. It is claimed that they might be rendered productive by irrigation, and the experiment has been tried in a small way, but with no flattering result. The upper portions of the valley, especially that which borders on Lake Tahoe, is excellent farming land. Between these two points—the meadows and the lake—but little meadow-land is found, the valley being reduced to narrow strips of low land in the cañons and narrows, and broad, gravelly uplands in the more open country. But the traveler who passes over the road can judge for himself, for the road follows up the river to within about 12 miles of its source.

SALVIA—Is seven miles from Wadsworth.

CLARKS—Is eight miles further. Both are signal stations, where passenger trains seldom stop.

TRUCKEE MEADOWS—In early days these meadows were a noted rendezvous of the emigrants, who camped here for days to recruit their teams after crossing the desert. They have an extent of about 10 miles in length by about two miles in width, enclosing considerable excellent grass land. Vegetables and small grains are successfully cultivated on portions of the moist land.

VISTA—Twelve miles west, is the next station. The country is very broken—brown, bare looking hills being scattered around in seeming confusion. A broad, gravelly upland covered with sage-brush usurps the valley.

RENO—Comes next—eight miles from Vista. Elevation 4,507 feet. We are gaining altitude. This promises to become an important point, and is at present a lively place. The town contains about 1,000 inhabitants. It was named for General Reno, who was killed in battle at South Mountain. The *Crescent* and *State Journal*—both weekly papers, are published here.

The mines of the Pea Vine district lie conveniently near Reno. There are silver and gold-bearing quartz and copper mines in the district, the latter predominating. At Pea Vine a new mill has recently been erected and is running on Paymaster ore, which yields all

the way from \$9 to \$900 per ton; ore, black sulphurets. The Washoe U. C. G. and S. M. Co., Works are near the town, affording excellent means by which to test and work the ores discovered in the neighborhood.

Two lines of stages run daily from Reno to Pea Vine, distance 11 miles; fare \$2.50 and \$3.00. Another line runs north to Susanville, distance 90 miles.

A new railroad is projected over the Sierras, to run from Reno (via Long Valley) to Oroville, Cal. The grade is said to be a good one.

THE VIRGINIA AND TRUCKEE R. R.

This road was completed in the fall of 1872 from Reno via Carson City to Virginia City, 51 miles distant. Before the completion of this road Virginia City was reached by stage, over a fearful steep zig-zag mountain road 21 miles distant, but the difference in distance between the "old and the new" is more than made up in the comfort of the passage if not in time.

At the time when these stages were running to convey passengers, a fast "Pony Express" was run for the purpose of carrying Wells, Fargo & Co.'s letter bags. This pony express was once a great institution. When it left Reno, the traveler could have observed that the mail express bags were thrown from the cars before the train had ceased its motion. By watching the proceedings still further he would see that they are transferred to the backs of stout horses, already bestrode by light, wiry riders. In a moment all is ready, and away they dash under whip and spur to the next station, when, changing horses, they are off again. Three relays of horses were used, and some "good time" was often made by these riders.

Passenger and freight trains are now run regularly between Reno, Carson, Gold Hill, and Virginia City. From Carson City stages run to different mining camps regularly.

As some of our readers may wish to know something in regard to the Great Comstock Mine, which was the first silver mine discovered in the State of Nevada, we will "change cars" and take a trip over the V. and T. R. R. and take a look at the most important places only.

STREAMBOAT SPRINGS—Are eleven miles south of Reno. There are several of these curious springs within a short distance of the road. They are near each other, all having a common source, though different outlets, apparently. They are situated in an alkaline flat, devoid of vegetation, and are very hot, though the temperature varies in different springs.

They are said to possess excellent medicinal qualities. At times they are quite active, emitting jets of water and clouds of steam, which at a distance resembles the blowing off of steam from a large boiler. The ground around them is soft and treacherous in places, as though it had been thrown up by the springs, and had not yet cooled or hardened. It is related that once upon a time, when a party of emigrants, who were toiling across the plains, arrived near these springs about camping time, they sent a man ahead—a Dutchman—to look out for a suitable place for camping—one where water and grass could be obtained. In his search the Dutchman discovered these springs, which happened to be quiet at the time, and knelt down to take a drink of the clear, nice-looking water. Just at that instant a jet of spray was thrown out and over the astonished Dutchman. Springing to his feet, he dashed away to the train, shouting at the top of his voice, "Drive on! drive on! h—ll is not five miles from this place!" the innocent fellow firmly believing what he uttered.

The traveler will find the springs sufficiently interesting to repay him for the trouble of pausing here awhile and taking a look around.

WASHOE CITY—Is six miles from the spring and contains about 700 inhabitants.

CARSON CITY—Is the capital of Nevada, 23 miles south of Reno and 21 miles south-west of Virginia City. It is situated in Eagle Valley, on the Carson River at the foot of the eastern base of the Sierras, and contains about 3,000 inhabitants. It is the oldest town in the State; has a good many fine private and public buildings. The town is tastefully decorated with trees, and has an abundance of good water.

The United States Branch Mint of Nevada is at this place. The *Appeal*, a daily paper, is published here.

Carson City is in the centre of the best farming on Carson River, and the best in this part of the State. It is connected by stage with Genoa, Markleville, Silver Mountain. The Carson City race-course has some notoriety by Feyler riding fifty miles in four hours for \$2,000.

GOLD HILL—Is a flourishing mining town 12 miles from Carson. It consists mostly of one street, being built along a ravine. One can see the town when he leaves Virginia City and enters Gold Hill, as they are so closely connected. The place contains about 5,000 inhabitants, and one newspaper—the *Hill News*—published daily.

VIRGINIA CITY—Adjoining Gold Hill, is situated 12 miles south of Reno, 21 miles; by rail 51 miles. It is on the slope of Mt. Davidson, at an elevation of 6,200 feet, the mountain rising 1,627 feet above the city. It is well built, contains many elegant public and private buildings, and a population of about 7,000, the portion of whom are engaged in mining operations. It is situated immediately under the city, from 500 to 1,600 feet above the level of the sea.

The *Territorial Enterprise* and the *Chronicle* are daily and weekly papers—are published here.

The religious and educational interests are represented by churches and schools.

There are a number of hotels in the city, at which a traveler will find good accommodations. The *National* is the principal one.

The Mines of Virginia City—are silver, and Gold Hill, as the name would indicate, are gold.

EARLY HISTORY—The first gold mines were discovered in 1857, by Joe Kirby and some others, who commenced mining in Six Mile Cañon (Gold Hill) where the Ophir works now are—and continued working with indifferent success until 1859. The first claim was located by James Finney, better known as "old Virginia," on the 22d of February, 1859, in the Virginia mining district and on the "Virginia" lode. The old prospector gave his name to the district. In June, 1859, rich deposits of silver ore were discovered by Peter O'Reilly and McLaughlin, on what is now the ground of the Virginia Mining Company. They were engaged in gold mining and uncovered a rich vein of sulphuret of silver engaged in excavating a place wherein to catch water for their rockers. The discovery was ground claimed by Kirby and others. A Mr. C. was employed to purchase the claims of Kirby and others, holding with him, hence Comstock's name was the lode.

THE COMSTOCK LODGE—Is about 25,000 feet in length, the out-croppings extending in a broad belt a mile or more on the mountain side. It extends under Virginia City and Gold Hill; the ground on which these cities are situated being all "honey-combed" or undermined; in fact the whole mountain is a series of shafts, tunnels and caverns from which the ore has been taken. The lode is broken and irregular at intervals along its length, far as traced, owing to the formation of the mountain.

It is also very irregular in thickness. In some places the fissure ranges from 80 to as high as 200 feet in width, while at other points the walls come close together. The greatest variation in width occurs at a depth of from 400 to 600 feet from the surface. The principal silver ores of this lode are stephanite, vitreous silver ore, native silver and very rich galena. Pyrrargyrite, or ruby silver, horn silver and polybasite, are found in small quantities, together with iron and copper pyrites, zinc-blende, carbonate of lead, pyromorphite and native gold.

The number of mills in and around Gold Hill and Virginia, and at other points, which work on ore from this lode, is between 75 and 80. They are scattered around through several counties, including Storey (where the lode lies), Lyon, Washoe and Ormsby, from 30 to 40 of the number being in Storey county. The product of the Comstock lode has been beyond that of any silver vein of which we have any record; furnishing the largest portion of bullion shipped from the State. Since 1859, the Comstock mines have yielded over \$150,000,000. It is confidently expected that upon the completion of the

SUBTERRANEAN TUNNEL,

these famous mines will exceed \$25,000,000 annually.

This tunnel is one of the most important enterprises ever inaugurated in mining operations in this or any other country. The object sought is ventilation, drainage, and a cheap means of working the mines, or bringing the ores to the surface. The tunnel commences in the valley of the Carson River; is 14 feet wide at the bottom, 13 feet at the top, and 12 feet high.

The main tunnel will be 19,790 feet in length, and the cross tunnels about 12,000 feet more. The tunnel will strike the Comstock ledge at a depth of 1,898½ feet below the point of the croppings. The estimated cost, when completed, \$4,418,329 50. The work is being pushed ahead vigorously, and nearly half the length had been completed at the commencement of the year 1874, and should no unforeseen drawbacks take place, the tunnel will be completed and in operation within the next two years.

REMARKABLE—In three years the stock of the "Belcher" Mine has advanced from \$1 per share to \$490, or \$5,096,000 for the mine. The "Crown Point," in 1870, sold for \$2 50; in December, 1872, for \$460, or \$5,520,000 for the mine.

Returning to Reno, we resume our journey west. The hills are loftier and covered with pine forests, and, as we enter the Truckee Cañon, we seem to have entered a cooler, pleasanter, and more invigorating atmosphere. The aroma of the spruce and pine is pleasant when compared with that of the alkaline plains. It is related of an Eastern lumberman, from "away down in Maine," who had been very sour and taciturn during the trip across the plains—refusing to be sociable with any of his fellow travelers—that when he entered within the shades of the forest, he straightened himself up in the cars for a moment, looked around, and exclaiming, "Thank God, I smell pitch once more," sank back in his seat and wept for joy.

VERDI—Is eleven miles west of Reno. On, up the river, with its foaming current now on our left, first on one side, then on the other, runs this beautiful stream until we lose sight of it altogether. The road crosses and re-crosses it on fine Howe truss bridges, running as straight as the course of the mountains will permit. The mountains tower up on either hand, in places sloping and covered with timber from base to summit, in others precipitous, and covered with masses of black, broken rock.—'Tis a rough country, the cañon



TRUCKEE RIVER CROSSING.

of the Truckee, possessing many grand and imposing features.

BRONCO—A flag station, is passed ten miles from Verdi. Occasional strips of meadow land are seen close to the river's edge, but too small and rocky to be of use, only as grazing land. Now we cross the dividing line, and shout



as we enter California, a few miles east of

BOCA—Six miles further west. Elevation 5,533 feet. The lumber interest is well represented here, huge piles of ties, boards and timber lining the roadside. The river seems to be the means of transportation for the saw logs, immense numbers of them being scattered up and down the stream, with here and there a party of lumbermen working them down to the mills.

The Truckee River, from Reno to its mountain source, is a very rapid stream, and affords dam-sites and mill-sites innumerable; yet, it is related that some years ago, before the completion of the Pacific Railroad, a certain Indian agent, who is now an Ex-U. S. Senator, charged up to the Government an "item" of \$40,000, as being the purchase-money for a mill-site on the Truckee, near a dam-site.

Some hungry aspirant for official position, who had a hankering after the "loaves and fishes," exposed the "item," and a committee was sent out from Washington to investigate the matter. This committee, went out by "Overland Stage," had a good time, traversed the country in every direction, explored the river thoroughly from the desert to Lake Tahoe, and reported that they could find numberless dam-sites by mill-sites, but could not find a mill by a dam-site.



DONNER LAKE. BOATING PARTY. See 122 page.

TRUCKEE—Is eight miles west of Boca. The country intervening is rough. The road passes through deep gravel cuts, along the base of black masses of rock, which tower far up the pine-clad hills. Truckee City is situated on the north bank of the Truckee River, in the midst of a heavily timbered region. The principal business of the place is lumbering, though an extensive freighting business is carried on with other points in the mountains. One can hardly get around the town for the pile of lumber, ties and wood, which cover the ground in every direction. Some fine stores and a good hotel are the only buildings which can lay claim to size and finish corresponding with the growth and business of the place. The town is composed of wooden buildings, mostly on the north side of the railroad.

The very sharp roof of the buildings point out the fact that the snow falls deep and moist here, sufficiently so to crush in the roofs—unless they are very sharp and strong. The town contains about 2,000 inhabitants, nearly all of whom are directly or indirectly connected with the lumber trade.

The *Tribune*, a semi-weekly paper, represents the interests of the Truckeeites.

The educational interests have been provided for, Nevada county, in which Truckee City is situated, being justly celebrated for her public schools.

There are three hotels in Truckee, the principal one being the Truckee House. At certain seasons of the year the cars stop before this house thirty minutes, affording time for the traveler to obtain a good meal. The Truckee House is the head-quarters of the tourists who stop over to visit objects of interest in this locality. This station is the end of the Truckee, and the commencement of the Sacramento and Oregon divisions.

The company have a 24-stall round-house and the usual machine and repair-shops of a division located here.

A line of stages leaves Truckee, daily, for Donner Lake, three miles; Lake Tahoe, fourteen miles; Sierraville, thirty miles. A good wagon-road connects Sierra City with Truckee via the Henness Pass and Donner Lake.

Freight is re-shipped here for Donner and Tahoe Lakes, Sierraville, and the various towns in Sierra Valley. There are some wholesale and retail houses here, which do a large business.

LAKE TAHOE, or Bigler, as it is called on some of the official maps, is located 12 miles south of Truckee. Tahoe is an Indian name, signifying "big water," and is pronounced by the Indians "Tah-oo," while the "pale faces" pronounce it "Tahoe." From Truckee a splendid road affords one of the best and most pleasant drives to be found in the State. The road follows the river bank, under the shade of waving pines or across green meadows until it reaches Tahoe City, at the foot of the lake. Here are excellent accommodations for travelers—a good hotel, boats, and a well-stocked stable, from whence you take a carriage (if you come by stage) and travel around the lake.

The latest attraction is a steamboat, placed upon the lake by B. Hollady, Jr., for the accommodation of pleasure seekers.

According to the survey of the State line, Lake Tahoe lies in two States and five counties. The line between California and Nevada runs north and south through the lake, until it reaches a certain point therein, when it changes to a course 17 degs. east of south. Thus the counties of El Dorado and Placer, in California, and Washoe, Ormsby and Douglas, in Nevada, all share in the waters of the Tahoe. Where the line was surveyed through the lake it is 1,700 feet deep.

Starting on our exploring tour we will commence with the eastern shore. The first object of interest met with is a relic of the palmy days of staging:

FIGURE 1. THROUGH THE FOREST—ON WESTERN SLOPE OF MOUNTAIN, NEW YORK, MOUNTAIN, ALBANY.



FRIDAY'S STATION, an old stage station, established by Burke in 1859, on the Placerville and Tahoe stage road. Ten miles further on we come to the GLENBROOK HOUSE, a favorite resort for tourists. Four miles further we come to THE CAVE, a cavern in the hill-side, fully 100 feet above and overhanging the lake. From Glenbrook House there is a fine road to Carson City.

Following around to the north end of the lake, and but a short distance away, are the celebrated HOT SPRINGS, lying just across the State line, in Nevada. Near them is a splendid spring of clear, cold water, totally devoid of mineral taste. The next object which attracts our attention is CORNELIAN BAY, a beautiful indentation in the coast, with fine gravel bottom. Thus far there has been scarcely a point from which the descent to the water's edge is not smooth and easy.

Passing on around to the west side we return to TAHOE CITY. Six miles from Tahoe City we reach SUGAR PINE POINT, a spur of mountains covered with a splendid forest of sugar pine, the most valuable lumber, for all uses, found on the Pacific coast. There are fine streams running into the lake on each side of the point. We now arrive at EMERALD BAY, a beautiful placid inlet, two miles long, which seems to hide itself among the pine-clad hills. It is not over 400 yards wide at its mouth, but widens to two miles inland, forming one of the prettiest land-locked harbors in the world. It is owned by Ben Holliday. At the south end of Tahoe, near the site of the OLD LAKE HOUSE, LAKE VALLEY CREEK enters the lake, having wound among the hills for many miles since it left the springs and snows which feed it. The VALLEY OF LAKE CREEK is one of the loveliest to be found among the Sierras. The whole distance, from the mountain slope to the lake, is one continual series of verdant meadows, dotted with milk ranches, where the choicest butter and cheese are manufactured. Around the lake the land is generally level for some distance back, and covered with pine, fir and balsam timber, embracing at least 300 sections of as fine timbered land as the State affords. It is easy of access and handy to market, the logs being rafted down the lake to the Truckee, and thence down to any point on the railroad above Reno. So much for the general appearance of Lake Tahoe. To understand its beauties, one must go there and spend a short time. When once there, sailing on the beautiful lake, gazing far down its shining, pebbly bottom, hooking the sparkling trout that make the pole sway and bend in your hand like a willow wand, you will be in no hurry to leave.

If you become tired of sailing and angling, take your gun and tramp into the hills, and fill your game pouch with quail and grouse, and perhaps you may start up a deer or bear. He who cannot content himself for a time at Tahoe, could not be satisfied in any place on earth; he would need to find a new and better world.

We have now circled the lake and can judge of its dimensions, which are 22 miles in length and 10 in width. We will now return to Truckee.

DONNER LAKE—A lovely little lakelet, the "Gem of the Sierras," lies two and a half miles north-west of Truckee. It is about three and a half miles long, with an average width of one mile, and at the deepest point sounded, is about 200 feet. This and Lake Tahoe are, by some, thought to be the craters of old volcanoes, the mountains around them presenting unmistakable evidences of volcanic formation. The waters of both lakes are cold and clear as crystal, the bottom showing every pebble with great distinctness under water 50 feet deep. It is surrounded on three sides by towering mountains, covered with a heavy growth of fir, spruce and pine trees of immense size. Were it not for the occasional rattling of the cars, away up the mountain side, as they

toil upward to the "Summit," and the few cabins scattered here and there along the shore, one would fancy that he was in one of nature's secret retreats, where man had never ventured before. A small stream, which tumbles down the mountain side, winds its way through the dense wood, and empties its ice-cold flood in the upper end or head of the lake, which rests against the foot of "Summit" Mountain. From the Lake House, situated as it is on a low gravelly flat, shaded by giant pines, a very fine view of the railroad can be obtained. Within sight are four tunnels and several miles of snow-sheds, while behind and seemingly overhanging the road, the mountains—bald, bleak, bare, massive piles of granite—tower far above their precipitous sides, seeming to bid defiance to the ravages of time. A fine road has been graded along the right-hand shore, from the station, forming a splendid drive. The "old emigrant road" skirts the foot of the lake (where the Donner party perished), and following up the stage road, climbs the "Summit" just beyond the long tunnel. Originally, it struck the divide at Summit Valley; from thence it followed the valley down for several miles, then struck across the crest-spur, and followed the divide down from Emigrant Gap.

The business of lumbering is carried on quite extensively at the lower end of the lake. The logs are slid down the mountain sides in "shoots," or troughs made of large trees, into the lake, and then rafted down to the mill. On the west side of the lake the timber has not been disturbed, but sweeps down from the railroad to the water's edge in one dense unbroken forest. The lower end of the lake is bordered with green meadows, covering an extent of several hundred acres of fine grazing land.

From the foot of the lake issues a beautiful creek, which, after uniting with Coldstream, forms the little Truckee river.

COLDSTREAM—Is a clear, cold mountain stream, about fifteen miles long. It rises in the "Summit" Mountain, opposite Summit valley. Some excellent grazing land borders the creek after it leaves the mountain's gorge.

FISHING AND HUNTING—In Donner and Tahoe Lakes is found the silver trout, which attains the weight of 20 pounds. There are many varieties of fish in these lakes, but this is most prized—most sought after by the angler. It is rare sport to bring to the water's edge one of these sleek-hide, sharp-biting fellows—to handle him delicately and daintily until he is safe landed, and then, when fried, baked, or broiled brown, the employment of the jaws to masticate the crisp, juicy morsels—it's not bad *jawing*. The water near the lake shore is fairly alive with white fish, dace, rock-fish, and several other varieties—the trout keeping in deeper water. There is no more favorite resort for the angler and hunter than these lakes and the surrounding mountains, where quail, grouse, deer and bear abound. These lakes were once a favorite resort for the

"SAN FRANCISCO SCHOOLMARMES,"

who annually visit this locality during the summer vacation. The steamboat and railroad companies generally pass them over the route, and they pass a happy week at Tahoe and Donner Lakes. It was a pleasant sight to see these merry girls—they are *girls* when among the hills—romping, scrambling and wandering among the hills and along the lake shore, giving new life and animation to the scene. The gray old hills and mighty forests re-echo with their merry laughter, as they stroll around the lake, gathering flowers and mosses, or, perhaps, essaying their skill as anglers, to the great slaughter of the funny inhabitants of the lake, and the total demoralization of the hearts of their male companions.



STARVATION CAMP. Stumps, cut by the Donner party, showing depth of snow.

It was amusing to see "ye" male teacher threading his way amid the brush and bogs around the lake. With what an effort he lifts his apology for a leg over some stupid log, which *would* come right in his way. Overcome with the effort, he sits down on an ant's nest beside the log to rest, when along comes a shouting, ruf-faced bevy of girls, who leap over the log, frightening "ye master" nearly out of his wits—if he has any—he is very much "shocked," and tries to look dignified; *they cannot*, and would not if they could; neither do they try, but pass on in their wild chase after health and vigor.

Why will our city men be so disgustingly dignified and stupid when in the pursuit of pleasure? They cannot enjoy life and freedom from care, as can a woman; they must be "stuck-up," or very *precise*, like hired mourners to a fashionable funeral.

THE DONNER PARTY—Around this beautiful sheet of water—nestled so closely in the embrace of these mighty mountains, smiling and joyous in its matchless beauty, as though no dark sorrow had ever occurred on its shores, or its clear waters reflected back, the wan and haggard face of starvation—is clustered the saddest of memories—a memory perpetuated by the name of the lake.

In the fall of '46, a party of emigrants, mostly from Illinois, arrived at Truckee River, worn and wasted from their long and arduous journey. Among that party was a Mr. Donner, who, with his family, were seeking the rich bottom lands of the California rivers, the fame of which had reached them in their eastern home. At that time a few hardy pioneers had settled near Sutter's Fort, brought there by the returning trappers, who, with wondrous tales of the fertility of the soil and the genial climate of California, had induced some of their friends to return with them

and settle in this beautiful land. The Donner party, as it is generally called, was one of those parties, and under the guidance of a trapper, was journeying to this then almost unknown land. Arriving at the Truckee, the guide, who knew the danger threatening them, hurried them forward, that they might cross the dreaded Sierras ere the snows of winter should encompass them. Part of the train hurried forward, but Mr. Donner, who had a large lot of cattle, would not hurry. Despite all warnings, he loitered along until, at last, he reached the foot of Donner Lake, and encamped there for the night. The weather was growing cold, and the black and threatening sky betokened the coming storm. At Donner Lake, the road turned to the left in those days, following up Coldstream, and crossing the Summit, near Summit Meadows, a very difficult and dangerous route in fair weather. The party who encamped at the lake that night numbered 16 souls, among whom were Mrs. Donner and her four children. During the night, the threatened storm burst over them in all its fury. The old pines swayed and bent before the blast which swept over the lake, bearing destruction and death on its snow-laden wings. The snow fell heavily and fast, as it *can* fall in those mountains. Most of the frightened cattle, despite the herders vigilance, "went off with the storm."

In the morning the terror-stricken emigrants beheld one vast expanse of snow, and the large white flakes falling thick and fast. Still there was hope. Some of the cattle and their horses remained. They could leave wagons, and with the horses they might possibly cross the mountains. But here arose another difficulty. Mr. Donner was unwell, and could not go—or, preferred to wait until the storm subsided; and Mrs. Donner, like a true woman, refused to leave her husband.

The balance of the party, with the exception of one,

a German, who decided to stay with the family, placed the children on the horses, and bade Mr. and Mrs. Donner a *last* good-by; and, after a long and perilous battle with the storm, they succeeded in crossing the mountains and reaching the valleys, where the danger was at an end. The storm continued, almost without intermission, for several weeks, and those who had crossed the Summit knew that an attempt to reach the imprisoned party would be futile—worse than folly, until the spring sun should melt away the icy barrier.

Of the long and dreary winter passed by these three persons, who shall tell? The tall stumps (see illustration) standing near where stood the cabin, attest the depth of snow. Some of them are 20 feet in height.

Early in the spring a party of brave men, led by Claude Cheney, started from the valley to bring out the prisoners, expecting to find them alive and well, for it was supposed that they had provisions enough to last them through the winter, but it seems they were mistaken.

After a desperate effort, which required weeks of toil and exposure, the party succeeded in scaling the mountains, and came to the camp of the Donners. What a sight met the first glance! In a rudely constructed cabin before the fire sat the Dutchman, holding, in a vice-like grasp, a roasted arm and hand, which he was greedily eating. With a wild and frightened look he sprang to his feet and confronted the new comers, holding on to the arm as though he feared they would deprive him of his repast. The remains of the arm were taken from him by main force, and the maniac secured. The remains of Mr. Donner were found, and, with those of his faithful wife, given such burial as the circumstances would permit, and, taking the survivor with them, returned to the valley.

The German recovered, and still lives. His story is, that soon after the party left, Mr. Donner died, and was buried in the snow. The last of the cattle escaped, leaving but little food; and when that was exhausted, Mrs. Donner died. Many dark suspicions of foul play on the part of the only survivor has been circulated, but whether they are correct will never be known, until the final unraveling of time's dark mysteries.

SIERRA VALLEY—Lies about 30 miles from Truckee City, among the Sierras. It is about 40 miles long, with a width of from five to seven miles. It is fertile, thickly settled, and taken in connection with some other mountain valleys, might be termed the Orange county of California—from the quantity and quality of butter and cheese manufactured there. In the mountain valleys and on the table-lands the best butter and cheese found in the State are manufactured—the low valleys being too warm, and the grasses and water not so good as found here. In Sierra, and many other mountain valleys, good crops of grain and vegetables are grown in favorable seasons, but the surest and most profitable business is dairying. The flourishing town of Royalton is situated in this valley.

HONEY LAKE—An almost circular sheet of water, about 10 miles in diameter, lies about 50 miles north of Truckee City. Willow creek and Susan creek enter it at the north, while Lone Valley creek empties its waters into the southern portion of the lake. Some fine meadow and grazing land is found in the valleys bordering these streams, which has been occupied by settlers, and converted into flourishing farms.

Susanville, the principal town in the valley, is situated north of the lake. It is connected by stage with Reno, Nevada, and Oroville, California.

We now take leave of Truckee City and its surroundings, and prepare to cross the "Summit of the Sierras," 14 miles distant. With two locomotives leading, we

cross the North Fork or Little Truckee on a single-span Howe truss bridge, and make directly across the broken land bordering the lake meadows, for the foot of the Sierras.

Then skirting along the hill-side, through long snow sheds, with the sparkling Coldstream on our right, winding through the grassy valley and among waving pines, we pass

STRONG'S CANON—Six miles from Truckee, and bend around the southern end of the valley, which borders Donner Lake, and, crossing Coldstream, commence the ascent of the mountain. As the train skirts the eastern base, rising higher and higher, Donner Lake is far below, looking like a lake of silver set in the shadows of green forests and brown mountains. Up still, the long, black line of the road bending around and seemingly stealing away in the same direction in which we are moving, though far below us, points out the winding course we have followed.

Up, still up, higher and higher toils the train, through the long line of snow-sheds leading to the first tunnel, while the locomotives are snorting an angry defiance as they enter the gloomy rock-bound chamber.

SUMMIT—Is fourteen miles west of Truckee, the highest point on the Sierra Nevada mountains passed over by the Central Pacific Railroad, 7,017 feet above the level of the sea. Distance from Omaha, 1,669 miles; from San Francisco, 245 miles. This is not the highest land of the Sierra Nevada mountains by any means, for bleak and bare of verdure, rise the granite peaks around us, to an altitude of over 10,000 feet. Piles of granite—their weather-stained and moss-clad sides glistening in the morning sun—rise between us and the "western shore," hiding from our sight the vast expanse of plain that we know lies between us and the golden shores of the Pacific Ocean. Scattering groups of hardy fir and spruce, line the mountain gorges, where rest the everlasting snows that have rested in the deep shady gulches, near the summit of these towering old mountains—who can tell how long? They have laid, evidently, since Adam was a very small boy, or the tree sprouted from which our apple-loving ancestor, Eve, plucked that be-deviled fruit.

We are on the dividing ridge which separates the head waters of several mountain rivers, which, by different and tortuous courses, find at last the same common receptacle for their snow-fed waters—the Sacramento River. Close to our right, far down in that fir-clad gorge, the waters of the South Yuba leap and dance along, amid dense and gloomy forests, and over almost countless rapids, cascades and waterfalls. This stream heads against and far up the Summit, one branch crossing the road at the next station—Cascade. After passing Cisco, the head waters of Bear River can be seen lying between the divide and the Yuba, which winds away beyond—out of sight, behind another mountain ridge. Farther on still, and we find the American River on our left. These streams reach the same ending—the Sacramento River—but are far apart, where they mingle with that stream. There is no grander scenery in the Sierras—of towering mountains, deep gorges, lofty precipices, sparkling waterfalls and crystal lakes—than abound within an easy distance of this place. The tourist can find scenes of the deepest interest and grandest beauty; the scholar and philosopher, objects of rare value for scientific investigation; the hunter and angler can find an almost unlimited field for his amusement; the former in the gorges of the mountains, where the timid deer and fierce grizzly bear make their home; the latter among the mountain



SUMMIT - SUMMIT NEW ADAS, DONNER LAKE, SNOW SHEDS AND TUNNELS.

lakes and streams, where the speckled trout leaps in its joyous freedom, while around all, is the music of snow-fed mountain torrent and mountain breeze, and over all is the clear blue sky of a sunny clime, tempered and softened by the shadows of the everlasting hills.

TUNNELS AND SNOW SHEDS—From the time when the road enters the crests of the "Summit," it passes through a succession of tunnels and snow-sheds, so closely connected that the traveler can hardly tell when the cars enter or leave a tunnel. The Summit Tunnel, the longest of the number, is 1,659 feet long, the others ranging from 100 to 870 feet in length.

The snow-sheds are solid structures, built of sawed and round timber, completely roofing in the road for many miles (see illustration, page 115). When the road was completed there were 23 miles of shed built, at an actual cost of \$10,000 per mile. With the additions since made the line reaches about 45 miles, which includes the whole length of the deep snow line on the dividing ridge. When we consider that along the summit the snow falls from 16 to 20 feet deep during a wet winter, we can imagine the necessity and importance of these structures. By this means the track is as clear from snow in the winter as in the valleys. The mighty avalanches which sweep down the mountain sides in spring, bearing everything before them, pass over the sloping roofs of the sheds and plunge into the chasms below, while beneath the rushing mass the cars glide smoothly along, the passengers hardly knowing but that they are in the midst of an enormous tunnel.

Where the road lies clear on the divide or level land, the sheds have sharp roofs, like those of any building calculated to withstand a great weight of snow. But where the road is built against the side of these bare peaks, the roof of the shed can have but one slope, and that must reach the mountain side, to enable the "snow slides" to cross the road without doing harm to that or the passing trains. (See illustration, page 116.)

Fires, sometimes cause damage to sheds and road, but seldom any delay to the trains, as the company have materials of all kinds on hand for any emergency, and, with their swarm of men, can, replace everything almost as quick as it is destroyed; but, to further protect the snow-sheds and bridges from fire, and the more effectually to extinguish them, the Railroad Company have stationed the locomotive Grey Eagle at the Summit (with steam always up and ready to answer a summons), with a force pump of large capacity, supplied with steam from the engine. Attached to the locomotive are eight water cars, the tanks on which are connected with each other and with the tender of the engine, so that the supply of water will always be sufficient to check any ordinary fire.

Passengers from the west, desiring to visit Lake Tahoe, can take a stage at the Summit House, which will afford them a fine view of Donner Lake, while rolling down the mountain and around to the north and east side of it, en route to Tahoe. Returning, those who choose, can take the cars for the east, at Truckee, without returning to the Summit. Fare for the "round trip," \$6.00.

Leaving the Summit, we pass on, through show-sheds and tunnels, around the base of towering peaks, anon over the bare ridge, with an unbroken view on either hand, then amid grand old forest trees until we reach

CASCADE—Six miles west of Summit. Elevation, 6,519 feet. Here we cross one of the branches of the Yuba, which goes leaping down the rocks in a shower of spray during the summer, but in the winter the chasm shows naught but a bed of snow and ice.

SUMMIT VALLEY—To the west, the traveler will observe a broad grassy meadow, dotted with trees, and lying between two lofty mountains.

This is one of the loftiest of the Sierra valleys, and is covered with a luxuriant growth of grass, affording pasturage for large bands of cattle, during the summer. It is all occupied by dairymen and stock-raisers, at whose comfortable dwellings the tourist will find a hearty welcome. It is a delightful summer retreat; a favorite resort for those who prefer the mountains, with their cool breezes and pure water. The valley is watered by many springs and snow-fed rivulets, whose waters flow to the American river.

This valley is becoming noted in a business point of view, as well as being a place of summer resort. It is becoming celebrated as a meat packing station, it having been demonstrated that pork and beef can be successfully cured here during any portion of the year. In most portions of the State, and especially so on the plains, it is extremely difficult, generally impossible, to cure meat by the usual process of pickling. The hams, which are cured in the low lands, are generally "pumped," and then they keep but a short time. But here meat can be put up in brine and thoroughly cured at any time. This fact, together with its proximity to the railroad, will have the effect of creating an extensive business at this point.

SODA SPRINGS—Are situated near the foot of Summit Valley, their waters uniting with others, forming the head waters of the American river. The springs are very large and numerous. The water is pronounced to be the best medicinal water in the State. It is a delightful drink, cool and sparkling, possessing the taste of the best quality of manufactured soda water. The larger of the springs have been improved, and great quantities of the water are now bottled and shipped to all parts of the State. Near the Soda Springs are others, the waters of which are devoid of mineral or acidulous taste, and boiling hot.

"'Tis a singular place," the miner said, when telling his friends of his discovery. "'Tis a singular place; dog on my skin if it ain't, whar sweet and sour water comes out'n the same hole, one cold as ice, to look at it,



Snow Coverings and Bridge, near Cisco.



GREAT AMERICAN CANYON.

but bilin' hot, the other looking warm and quiet, but cold enough to freeze a feller to death."

TAMERACK—four miles west of Cascade—is the station at which to leave the cars to visit Summit Valley.

CISCO—Elevation 5,939; three miles west of Tamarack. Passenger trains, at certain seasons of the year, stop here for meals. There is quite a little town of sharp-roofed wooden houses here, containing about 400 inhabitants. At one time it was quite an important place, being the "terminus" during the time occupied in tunneling through the summit.

From this station we pass along rapidly and easily, without the help of the locomotive.

To the right, occasional glimpses of the Bear and Yuba rivers can be seen far below us.

EMIGRANT GAP—Is nine miles west of Cisco, at the place where the old emigrant road crossed the divide, and followed down the ridges to the valley of the Sacramento. The emigrants passed *over* the "gap," we pass *under* it, making a slight difference in elevation between the two roads, as well as a difference in the mode of traveling. We have seen the last of the old emigrant road that we have followed so far. No more will the weary emigrant toil over the long and weary journey. Space is annihilated, and the tireless iron horse will henceforth haul an iron wagon over an iron road, landing the tourist and emigrant fresh and hearty, after a week's ride, from the far eastern shores of our country to the far western—from Ocean to Ocean.

Passing on amid the grand old pines, leaving the summit peaks behind, we turn up blue cañon, the road-bed on the opposite bank apparently running parallel with the one we are traversing. Swinging around the

head of the cañon, past saw-mills and lumber side-tracks, we reach the station of

BLUE CANON—Six miles from Cisco. Elevation 4,677 feet. A freight and lumber station, where immense quantities of lumber are shipped from mills in vicinity. Before the railroad reached these mountains, the lumber interest of this section was of little value, there being only a local demand, which hardly paid for building mills and keeping teams. The mines were then the only market—the cost of freight to the valleys forbidding competition with the Puget Sound lumber trade, or with mills situated so much nearer the agricultural districts. Now the lumber can be sent to the valleys, and sold as cheap as any, in a market rarely overstocked, for the one item of lumber forms one of the staple market articles, ruling at more regular prices, and being in better demand than any other article of trade, on the coast, if we except wheat.

Leaving Blue Cañon, we speed along around the hill-sides, past CHINA RANCH, a side-track, about two miles west. The passenger should now watch the scenery on the left.

SHADY RUN—Is five miles west of Blue Cañon, but passenger trains seldom stop. On the left, south side, can be seen one of the grandest gorges in the Sierra Nevada mountains.

"THE GREAT AMERICAN CANYON"

(See illustration). At this point the American river is compressed between two walls, 2,000 feet high, and so near perpendicular that we can stand on the brink of the cliff and look directly down on the foaming waters below. The cañon is about two miles long, and so precipitous are its sides, which are washed by the torrent, that it has been found impossible to ascend the

stream through the gorge, even on foot. This is a beautiful view, one of nature's most magnificent panoramas. But we soon lose sight of it as our train turns to the right, up a side cañon and stops at

ALTA—four miles from Shady Run. Alta looks old and weather-beaten, and its half dozen board houses, with sharp roofs, look as though there was little less than a century between the present and the time when they were ushered into existence—like its namesake in San Francisco, after which it was named.

DUTCH FLAT—Is about two miles from Alta. Old settlers call it German Level. Elevation 3,408 feet. The town of Dutch Flat is situated in a hollow, near by and to the right of the road, a portion of it being in plain view. The town contains many good buildings, churches, schools, and hotels. Population about 2,200. One feature of this town is worth noting, and worthy of commendation—the beautiful gardens and fine orchards which ornament almost every house. In almost all of the mountain towns—in fact in all of the older mining towns, the scene is reproduced while many of the valley towns are bare of vines, flowers or fruit trees: the miner's cabin has its garden and fruit trees attached, if water can be had for irrigation, while half of the farm houses have neither fruit trees, shrubs, flowers or gardens around them.

Stages leave this station daily for Nevada, 16 miles, via Little York, You Bet and Red Dog. Freight teams leave here for all the above named towns and mining camps in this vicinity.

LITTLE YORK—A mining town, three miles north-west of Dutch Flat, contains about 500 inhabitants.

YOU BET—Is six miles from Little York, also a mining town, about the same size.

RED DOG—Seven and a half miles from You Bet, still another small mining town.

These towns are situated on what is called the Blue Lode, the best large placer mining district in the State. The traveler will see the evidences of the vast labor performed here, while standing on the platform of the cars at Alta, Dutch Flat or Gold Run stations. The Blue Lode extends from below Gold Run, through the length of Nevada, on, into and through a portion of Sierra County. It is supposed to be the bed of some ancient river which was much larger than any of the existing mountain streams. The course of this old river was nearly at right angles with that followed by the Yuba and other streams, which run across it. The channel is from one to five miles wide in places—at least the gravel hills, which are supposed to cover the bed, extend for that distance across the range. Many of these gravel hills are from 100 to 500 feet high, covered with pine trees from two to six feet in diameter. Petrified trees, oak and pine, and other woods, such as manzanita, mountain mahogany and maple, are found in the bed of the river, showing that the same varieties of wood existed when this great change was wrought, as are now growing on the adjacent hill-sides.

The traveler will observe by the road side, mining ditches and flumes, carrying a large and rapid stream of water. These ditches extend for many miles, tapping the rivers near their sources—near the regions of perpetual snow.—By this means the water is conveyed over the tops of the hills, whence it is carried to any claim below it. The long, high and narrow flume, called a "telegraph," carries the water from the ditch, as nearly level as possible, over the claim to be worked. To the "telegraph" is attached a hose with an iron pipe, or nozzle, through which the water rushes with great velocity. When directed against a gravel bank, it cuts and tears it down, washing the dirt thoroughly,



HYDRAULIC MINING.

at a rate astonishing to those unacquainted with hydraulic mining. (See illustration above.) The carries rocks, dirt and sand through the tail race, into the long flumes, where the riffles for collecting gold are placed. Miles and miles of the flumes been built, at an enormous expense, to save the carried away, in the tailings.

Around Little York and You Bet, the lode is not too much with cement to mine in this manner profit, hence mills have been erected where the ore is worked in the same manner as quartz rock—crushed and then amalgamated.

GOLD RUN—two miles beyond Dutch Flat—elevation 3,206 feet—is a small mining town, contains about 200 inhabitants. Around it you can see, on the one hand, the miner's work. Long flume beds, which scoop off the washed gravel and retain the gold; long large ditches full of ice-cold water, which, directed by skillful hands, are fast tearing down the mountains sending the washed debris to fill the river beds in plains below. There are a set of "pipes" built up against the hillside, which often comes down acres. All is life, energy and activity. We don't see many children peeping out of those cabins, for there are not so plenty in the mining districts as in Lake. But we do see nearly all of the cabins rounded with little gardens and orchards, which produce the finest of fruit.

Descending the mountain rapidly we can see and there Chinese cabins, and by them huge piles of soap root, and bales of the prepared article. It is then transported to the factories, where it is manufactured into mattresses. This root grows in profusion in the hard red soil of the mountains. On, amid many claims, by the side of large ditches, through the gravel cuts, and along the grassy hillsides, until the left, a glimpse of the North Fork of the American river can be had, foaming and dashing along in a row gorge full 1,500 feet beneath us. Farther on we see the North Fork of the North Fork, dashing down the steep mountain at right angles with the other, coming from waterfall to waterfall, its sparkling current resembling an airy chain of dancing sunbeams, as it seems to unite with the main stream. Now we

sight of it, while it passes through one of those grand cañons only to be met with in these mountains.

C. H. MILL—a station where trains seldom stop—is six miles from Gold Run—elevation 2,691 feet. The passenger should be on the look-out, and look to the left—south—as the scene changes with every revolution of the wheels. A few moments ago we left the cañon behind—now, behold, it breaks on our view again, and this time right under us, as it were, but much farther down. It seems as though we could jump from the platform into the river, so close are we to the brink of the precipice; steadily on goes the long train, while far below us the waters dance along, the river looking like a winding thread of silver laid in the bottom of the chasm, 2,500 feet below us. This is

CAPE HORN,

one of the grandest scenes on the American Continent, if not in the world. Timid ladies will draw back with a shudder—one look into the awful chasm being sufficient to unsettle their nerves, and deprive them of the wish to linger near the grandest scene on the whole line of the trans-continental railroad.



AMERICAN RIVER, (From Cape Horn).

Now look farther down the river and behold that black speck spanning the silver line—

That is the turnpike bridge on the road to Iowa Hill, though it looks no larger than a foot plank. Now we turn sharp around to our right, where the towering masses of rock have been cut down, affording a road-bed, where a few years ago the savage could not make a foot trail. Far above us they rear their black crests, towering away, as it were, to the clouds, their long shadows falling far across the lovely little valley now lying on our left, and a thousand feet below us still. We have lost sight of the river, and are following the mountain side, looking for a place to cross this valley and reach the road-bed on the opposite side, which we can see runs parallel with us. Soon it is found, and turning to our left, we cross the valley on a trestle bridge, 113 feet high and 878 feet long, where it crosses the lowest part of the valley. Gradually the height grows less, until it is reduced, at the end of 600 feet, enough to admit of an embankment being raised to

meet it. On, over the embankment, which curves around to the left, and now we are on the solid hill-side, and running along opposite the road by which we passed up the valley. We now have our last and best look at the bold bluff.

The best view of this noted place is obtained when going east, or from the river below. Viewed from the river, the passing train looks like some huge monster winding around the bluff, bold point, puffing and blowing with its herculean labors, or screaming angry notes of defiance, or perhaps of ultimate triumph at the obstacles overcome, (see next page).

When the road was in course of construction, the groups of Chinese laborers on the bluffs looked almost like swarms of ants, when viewed from the river. Years ago, the cunning savage could find only a very round-about trail by which to ascend the point, where now the genius and energy of the pale-face has laid a broad and safe road, whereon the iron steed carries its living freight swiftly and safely on their way to and from ocean to ocean.

When the road-bed was constructed around this point, the men who broke the first standing ground were held by ropes until firm foot-holds could be excavated in the rocky sides of the precipitous bluffs.

COLFAX—Is five miles from C. H. Mills, and about two miles beyond the trestle bridge mentioned. Elevation 2,421 feet. This is a regular eating station—and an excellent table is set. The company have a large depot here, this being the distributing point for freight bound for Grass Valley, Nevada, and a large scope of mining country. The town is named in honor of Schuyler Colfax, one of the warmest friends and earliest supporters of the road.

Colfax is one of the prettiest and most substantial of the railroad towns. It contains about 1,000 inhabitants, is well watered, and has an air of general thrift about it, which marks all the permanent towns along the road.

A double daily line of stages runs to Iowa Hill, 12 miles; Grass Valley, 13 miles; Nevada, 17 miles; North San Juan, 29 miles; Camptonville, 41 miles; Forest City, 60 miles, and Downieville, 75 miles. Fast freight for Nevada, Grass Valley, San Juan, Little York, You Bet, is taken on four-horse express wagons, but the regular freighting goes a little slower, generally. The Grass Valley and Nevada freight is a very important item in the business of the railroad; these large towns receiving all their freight from this point.

ILLINOIS TOWN—About half a mile west of Colfax, once a noted freighting point for the surrounding mines. It now contains about 100 inhabitants. Some of the finest apple and peach orchards in this section are found here, the attention of the inhabitants being directed to fruit-growing and farming.

IOWA HILL—A mining town, 12 miles south of Colfax. A good toll-road crosses the American river on the bridge which we saw when rounding Cape Horn, and follows up the mountain to the town, which contains about 600 inhabitants.

GRASS VALLEY—Is a thriving mining town lying 13 miles northerly from Colfax, and contains about 5,000 inhabitants. It is a beautiful town—one of those lovely places only met with in the California mines. It contains numerous fine buildings, public and private. The private dwellings, generally, are enclosed in fine orchards and gardens, which give an air of comfort and home-like beauty rarely met with. The town derives its prominence from the quartz mines in and around it. No town in the State has produced an equal amount of



ROUNDING CAPE HORN.—From the American River below.

gold from quartz; none has added more real wealth to the State at large.

In September, 1850, a miner picked up a piece of gold-bearing quartz on Gold Hill. From this, prospecting commenced, and soon several valuable mines were opened. In 1851, the first quartz mill was erected in Boston ravine, now one of the most populous portions of the town. Quartz mills are now quite numerous and well supplied with all the modern improvements, which enable them to mill the ore with little loss. The custom mills work rock very cheap, affording prospectors an opportunity to test their discoveries. The town is connected with Nevada and the northern towns by stage; also, with Marysville.

NEVADA—The county seat of Nevada county, is situated on Deer Creek, four miles from Grass Valley, and contains about 4,000 inhabitants. It is rather irregularly laid out, owing to the formation of the land and the creek which runs through a portion of the town. There are many elegant private residences, and in all parts of the city we find the tasty gardens, flourishing orchards and vineyards—their bright green

foliage contrasting strikingly brown or red hill-sides.

The first mining in Nevada, cer, creek and gulch-washin mines were very rich, and lasted years. During this time the fa "diggings," a part of the "bed," were discovered and open too, proved a source of great though many miners became broke" before the right systematic mining with long flumes inaugurated. These mines prove tensile and lasting, and yet of the chief sources of the city. Of late years the attention of people has been directed to cer quartz mining, and several valuable quartz veins have been opened fine mills erected on them. Interest is now a decided feature of the business of the city.

Nevada is connected by Marysville via Grass Valley, I via Little York and You Bet, Juan and Downieville.

NORTH SAN JUAN—A hydraulic town, situated in the richest part "deep digging," 29 miles from is one of the liveliest mining towns met with, and contains about inhabitants. The town is surrounded by orchards and vineyards, and the houses are fairly embowered in them. The township in which San Juan is located produces over \$1,300,000 annually.

COMPTONVILLE—Forty-one miles from Nevada, is a small mining town, county, containing about 500 inhabitants. It is dependent on placer mining and has a portion of the "old claims" hill mines in the immediate vicinity.

FORREST HILL—Sixty miles from Nevada, is also a mining town, of 400 inhabitants, situated in Sierra County. The mines are "drift diggings."

DOWNIEVILLE—The largest town in Sierra County, 75 miles from Nevada, situated on the Yuba River, and about 1,000 inhabitants. It is a flourishing town, well built, containing many elegant private residences and buildings, including several good hotels.

Returning to Nevada, we will note the towns in another direction.

LAKE CITY—Eleven miles from Nevada, is a town, dependent on placer mining. Population, 100.

BLOOMFIELD—Is three miles from Lake City, sometimes called Humbug. Population about 100. Deep and rich "diggings" are found here, but of proper drainage prevents them from being of advantage. With this defect remedied, Humbug would be no longer.

MOORE'S FLAT—Is another mining town, from Bloomfield. The mines are placer, deep and have been very rich, and are still paying. Population about 600.

EUREKA SOUTH—Is a small quartz mining town, situated in the rich quartz section, has several quartz mills, thriving town—Connected with Nevada by stage, population, 800.



BLOOMER CUT—85 feet deep and 800 feet long. — Near Auburn, Sierra Nevada Mountains.

Returning to the Railroad, which we left at Colfax, we follow down Auburn ravine, at times near its bed and anon winding in and out among the hills, passing many little ranches.

N. E. MILLS—Five miles from Colfax. The country along here is very rough and broken, with numerous cuts, fills, bridges, and one tunnel near the next station, 700 feet in length.

CLIPPER GAP—Is six miles further west. Again forward, we leave the ravine and keep along the foot hills, hold the grade—passing through many an old washed placer mine, in which, only a few short years ago, could be seen thousands of men digging and washing, washing and digging, from morning till night, seeking what said to be “the root of all evil”—GOLD.

AUBURN—The county seat of Placer County—is ten miles west of Clipper Gap, and contains about 100 inhabitants. Elevation 1,362 feet. Gardens and orchards abound, and everything betokens quiet, home-comforts and ease. It has excellent schools and fine churches, and is one of the neatest looking towns in the county. The public buildings, court-house, etc., are good, and the ground well kept. The greater part of the dwellings stand a little distance from the road.

The American, Orleans, and Railroad House, are the principal hotels. The *Placer Herald* and the *Argus*, the weekly newspapers, are published here.

Stages run daily from Auburn to Pilot Hill, six miles; to Valley, six miles; Greenwood, twelve miles; and Georgetown, seventeen miles. The Auburn Stage Line runs to Forrest Hill, 21 miles; and Michigan Bluffs, 30 miles. So lines to Placerville, 29 miles, via Alabaster Cave, Pilot Hill, Coloma and Cold Springs.

ALABASTER CAVE—This most remarkable cave is situated eight miles south-east of Auburn on Kidd's Ravine, about a mile above its junction with the North Fork of American River. As we cannot afford the space neces-

sary for a full description, we can do no better than to copy the announcement that was made by the first explorer, Mr. Gwynn, and published in the *Sacramento Bee*, August 19th, 1860. He says:

“Wonders will never cease. On yesterday, we, in quarrying rock, made an opening to the most beautiful cave you ever beheld. On our first entrance, we descended about 15 feet, gradually to the centre of the room, which is 100x30 feet. At the north end there is a most magnificent pulpit in the Episcopal Church style that man ever has seen. It seems that it is, and should be called, the ‘Holy of Holies.’ It is completed with the most beautiful drapery of alabaster sterites, of all colors, varying from white to pink-red, overhanging the beholder. Immediately under the pulpit there is a beautiful lake of water, extending to an unknown distance. We thought this all, but, to our great admiration, on arriving at the centre of the first room, we saw an entrance to an inner chamber still more splendid, 200x100 feet, with most beautiful alabaster overhangings, in every possible shape of drapery. Here stands magnitude, giving the instant impression of a power above man; grandeur that defies decay; antiquity that tells of ages unnumbered; beauty which the touch of time makes more beautiful; use exhaustless for the service of man; strength imperishable as the globe—the monument of eternity—the truest emblem of that everlasting and unchangeable, irresistible Majesty, by whom, and for whom, all things were made.”

Soon after leaving Auburn we pass through “Bloomer Cut” (see illustration,) then, as we near the next station, over Newcastle Gap Bridge, which is 528 feet long, and 60 feet high.

NEWCASTLE—Is a small place, of about 200 inhabitants, five miles from Auburn. Elevation 969 feet. We pass on through little valleys and among low hills, with evidences of past and a little present mining.

Off to the right are the old time mining camps of

Ophir, Virginia City, Gold Hill, and several others, where yet considerable placer mining is indulged in by the old settlers, who are good for nothing else. There is a miner's cabin under yonder tree, with a little patch of garden, and—yes, a rose-bush in front.

Look! old '49 comes to the door, pipe in mouth, a twenty years' beard sweeping his bosom, and gazes on the passing train. Look! with what a deprecating gesture he admits the fact that the railroad has got ahead of *his* time, and is sending its loads of rosy-cheeked women into the country to disturb *his* peace and quietness. Sadly he turns to enter his lonely cabin, when we read on the seat of his unmentionables "Warranted 98 lbs., superior quality." Poor fellow, who knows but that the next time we pass this way, we may behold another man, outwardly, but still the same. The beard will have been trimmed, the house "tidied" up, the flour-sack will have given place to "store-clothes," and a smiling, rosy face, surmounted by a waterfall, will look out of the doorway of what is now a real home. So mote it be.

Just after leaving Newcastle, we catch the first glimpse of the beautiful valley of the Sacramento, from the windows on the right-hand side of the cars.

PINO—Six miles west of Newcastle. Elevation, 403 feet. We are rapidly descending, but among the low hills, covered with chaparral, manzanita and greasewood, the road winds onward for three miles further, passing several valuable quarries, to the right and left, when we arrive at

ROCKLIN—Elevation, 248 feet. Here the company have a machine shop and round-house of 28-stalls, built in the most substantial manner, of granite, obtained near by. The celebrated Rocklin Granite Quarries are close to the station, on the left-hand side of the road. The granite obtained here is of excellent quality, and does not stain on exposure to the weather.

Leaving Rocklin and the foot-hills—the country now opening out into the plains, or the valley bordering the American river. We have no more hills to encounter, yet the country is somewhat uneven, and after winding around, on a regular grade for four miles further, we reach the

JUNCTION—Elevation now only 163 feet. Here the Central connects with the Sacramento and Marysville, or California and Oregon R. R. Passengers for Northern California and Oregon will need to change cars. The train is waiting; let us step on board, visit a few of the cities and towns, and see what there is to be seen.

The California and Oregon Railroad is owned by the Central Pacific Company, and under the same management. It is now completed 151 miles north of this place, with the design of extending it to Portland, Oregon, where it will tap the enormous trade of the Columbia River and its numerous tributaries. The time is not far distant (in the age of nations) when passengers will hear, on arriving at this station, "All aboard for Puget Sound, Hudson Bay, Alaska and Behring Straits; close connections made with the *Yankee Tunnel Company*, under Behring Straits for all points in Russia, China, Japan, Germany, England, France, and the Holy Land!"

Leaving the Junction, we are whirled along over a fine road-bed, in and out among the foot-hills, with rapid and ever-changing scenery on either hand; ten miles brings us to Lincoln, then four to Ewings, four to Sheridan, three to Wheatland, six to Reeds, and five more to Yuba City, the first place of much importance on the road.

YUBA CITY has a population of about 1,000; it is situated on the eastern bank of the Feather River above its junction with the Yuba. It is the county seat of Sutter county—first settled in 1849. The county named after General Sutter, the old pioneer, at mill-race at Coloma, El Dorado county, on the fork of the American River, January 19th, 1848 first gold was discovered in California. The county has a population of about 6,000, mostly engaged in agriculture. The soil is very fertile, and produces large crops of wheat, oats, and barley; there are also some fine vineyards, producing a superior quality of wine from which many thousand gallons of wine and brandy are made annually.

Yuba City is at the head of steamboat navigation in addition to the California & Oregon Railroad connected with Sacramento and San Francisco by the California Pacific Railroad via Vallejo. Don't visit

"THE BUTTES"—a noted landmark near the city. They consist of a series of peaks that rise from the crest of an isolated mountain range, which stand out clear among the plains. From appearance they would be led to suppose that this ridge crossed the valley at one time, when this was an inland sea; and the waters escaped from the lower valley, those confined above cut a portion of the ridge down level to the plain, and escaping, left a beautiful valley about the city.

From the summit of their bald peaks a fine view may be had of a great portion of the Sacramento valley.

MOUNT SHASTA is away to the northward, 220 miles distant, in latitude 41 deg. 30 min., an insulated lofty volcanic mountain, over 14,440 feet high. It is covered with perpetual snow, and is the head and source of the Sacramento river. (See illustration, next page.) To the north-west, in the Coast Range of mountains, be distinctly seen Mounts Linn, St. John and Elmer. On the south, Mount Diablo, in the Contra Costa range, while on the east, from north to south, are the ranges of the Sierra Nevadas, as far as the eye can see. Returning to Yuba City, we cross Feather River by a bridge two miles to

MARYSVILLE—one of the prettiest towns in the State. It is the county seat of Yuba county, situated on the north bank of the Yuba river, with a population of 4,738. It was first settled in 1849, and named in honor of the only white woman within its limits—Mrs. Mary Covilland. The town is built of brick, and is wide, and laid out at right angles. The chief feature of Marysville consists in the shrubbery which surrounds the town, though there are many elegant public buildings and private residences in the city. So close will you find a dwelling that is not surrounded by a forest of fruit and shade trees, or embowered in a mass of vines and flowers. During the past few years the town has been improving rapidly. It carries on an extensive trade with the northern part of the State, and now it may be classed as the fourth commercial city in the State.

Marysville has two newspapers, two seminaries, a public, and numerous private schools, also five churches, nearly all denominations being represented. The city is lighted with gas, and supplied with water from an artesian well 300 feet deep, from which it is supplied by steam power to a reservoir, and thence conducted all over the city. It has quite a number of manufacturing establishments, including an iron foundry and machine shop, where are manufactured all kinds of mill machinery, stationary engines, &c.

Agriculture is now the principal source of wealth in the county. Fruit culture and stock raising are also remunerative.



MOUNT SHASTA, CALIFORNIA. See opposite page.

Saw-mills are quite numerous, immense quantities of lumber being sawed here and shipped down the river.

Most of the mining is now done by hydraulic process. There are 12 quartz mills in the county, and 26 companies owning canals or mining ditches; one of which, the Excelsior, cost over \$500,000, and, with its branches, is over 150 miles in length.

There are regular stage lines from Marysville to Colusa, 29 miles; Downieville, 65 miles; North San Juan, 38 miles; Grass Valley, 36 miles; and Nevada, 40 miles. In addition to the California and Oregon Railroad, there are two other lines which have their termini at Marysville—the California Pacific Railroad, for Sacramento and San Francisco via Vallejo, and the Northern California Railroad, running to

OROVILLE—26 miles distant. This town has a population of 1,425, and is the county seat of Butte county. Placer mining is the principal employment of the people. The mines around this town are very rich and extensive, and have been worked for many years. The town possesses the general characteristics of the old mining towns—beautiful gardens and orchards, which give to these places an indescribable charm. This county possesses some of the finest agricultural land in the State. All kinds of grain and produce are raised in abundance. The vineyards are numerous, producing large quantities of wine and brandy annually. Raisins are produced in large quantities, and an immense amount of peanuts are gathered for market every year. Stock raising is also an important feature. Wool is a staple export of the county. Schools and churches are in a flourishing condition—a sure evidence of a people's prosperity. Stages leave Oroville regularly for La Porte, 52 miles; Susanville, 105 miles; as well as to most of the adjoining towns.

Returning to Marysville, we again seat ourselves in the cars, on the C. and O. Railroad, and start again to the northward, passing through a fine section of country. Seven miles brings us to Lomo, 10 to Gridley, 3 to Biggs, 10 to Nelson, 7 to Durham, 2 to Roble, and 5 more to

CHICO—one of the prettiest towns in the State. It is 43 miles from Marysville, 95 from Sacramento, 25 north-west from Oroville, and 5 miles east of the Sacramento river, situated in Chico valley, Butte county, in the midst of as rich a farming section as the State affords. Population, 3,714, and increasing rapidly. Near the town, General Bidwell, the old pioneer, has an extensive ranch—or farm, as it would be called in the Eastern States—which is in a very high state of cultivation, producing abundantly all kinds of fruits and plants of the temperate and semi-tropical climes.

From Chico it is 7 miles to Nord, 2 more to Anita, 3 to Cana, 3 to Soto, 4 to Vina, 8 to Sesma, 1 to Tehama, and 12 to

RED BLUFFS—the county seat of Tehama county, at the head of navigation on the Sacramento river, with a population of about 1,200. It is situated in the midst of rich agricultural and grazing land, with many thriving vineyards. It is 10 miles from Red Bluffs to Hooker, 5 to Buckeye, 2 to Cottonwood, 6 to Andersons, 6 to Clarks, and 5 more to Reading, the present end of the track. The California and Oregon stages for the north, and several other stage lines, connect the adjoining towns.

We now return to the JUNCTION.

ANTELOPE—Is 3 miles west. The country is more level, and dotted here and there with varieties of oaks. Passenger trains do not stop.

ARCADE—Seven miles further. Elevation 55 feet.

Four miles from Arcade the long train slowly crosses a long stretch of trestle work through the marsh lands, and then over the AMERICAN RIVER BRIDGE, which spans the main stream, and now we pass along by the orchards and gardens which fringe the suburbs of the Capital of California, pass the long line of machine-shops, and are on the bank of the Sacramento River, with solid blocks of brick stores on our left, and the crowded wharves on our right, and stop at the City of

SACRAMENTO—Until the spring of 1870, this was the western terminus of the Grand Trans-Continental Railroad. But upon the completion of the Western Pacific, from Sacramento to San Francisco, the two roads were consolidated under the name of the Central Pacific Railroad of California, making one unbroken line from San Francisco to Ogden, 882 miles long. Distance from Sacramento to Omaha, 1,776 18-100 miles; Kansas City, 2,002 miles; to Stockton, 50 miles; San Francisco, 138 miles; Vallejo, 60 miles; Marysville, 52 miles; Portland, Oregon, 642 miles.

But we promised to tell you where to go, and who to stop with. Sacramento has many good hotels. There is little difference in any of them. The Orleans, Golden Eagle, and Capitol, are the most frequented by tourists. You will find "free busses" at the depot that will take you to any of them.

The City is situated on the east bank of the Sacramento River, south of the American, which unites with the Sacramento at this point. It is mostly built of brick; the streets are broad, well-paved, and bordered with shade trees throughout a large portion of the city. It contains numerous elegant public and private buildings, including the State Capitol and County buildings. Population, by last census, 16,283; at present it is probably 18,000.

Churches of nearly all denominations, and public and private schools, are numerous. There are two Orphan Asylums—one Catholic, by the Sisters of St. Joseph, and the other Protestant; so the orphans need not suffer, as they are well attended to.

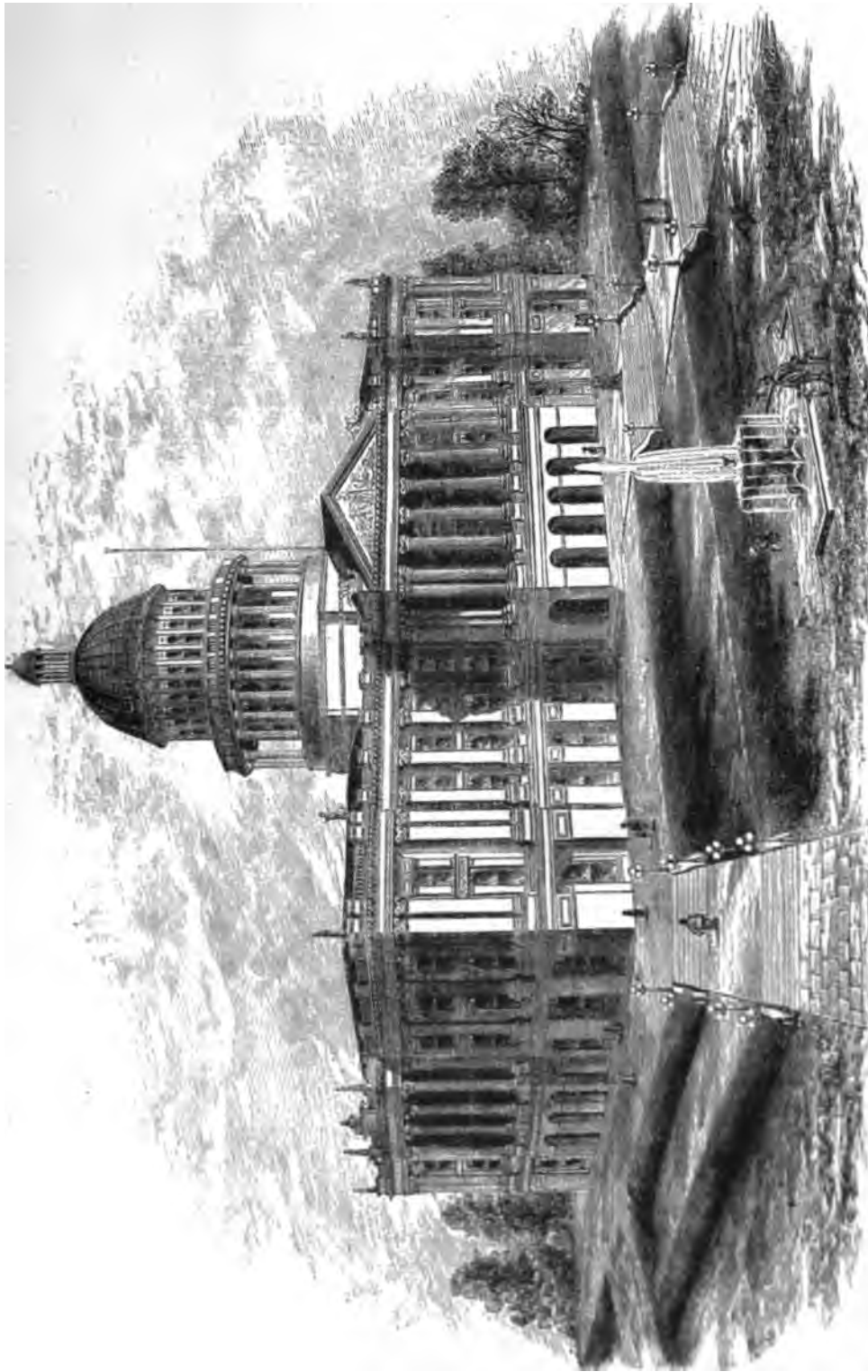
Masons, Odd Fellows, and many other secret associations, have lodges and meetings here. The City is lighted with gas, and watered from the river by the aid of two pumps—with a lifting capacity of about 90,000 gallons per hour.

Five newspapers are published in this City, three of which are daily:—The *Union*, the *Bee* and the *Record*, each of which publish weeklies; the *Journal*, a semi-weekly German paper; and the *Rescue*, a weekly temperance paper.

There is much of interest in Sacramento to the traveler, aside from the fact of its being the capital of the State, and the centre of the railroad system, which has given new life and impetus to the inland commerce of the State.

There is a quiet beauty, peculiar to this city alone, which renders it attractive to the most careless of travelers. Its well-shaded streets; its beautiful gardens, blooming with an almost tropical luxuriance; its vineyards and orchards, all combine to form a city such as one rarely meets with in California, and nowhere else.

Sacramento is endeared to Californians—not by reason of her present beauty and prosperity—but because she is truly an American city, whose people, by their indomitable energy and perseverance, have raised this monument to our national character, despite the ravages of fire and flood. Not only have they re-built their city, but they have built the ground on which it stands, and to-day the city stands some ten feet



STATE CAPITOL OF CALIFORNIA. (Description—next page.)

above the original site on which Sacramento was first established.

From the small and unimportant hamlet of a few years ago, it has emerged into a thriving, bustling city. Fires burned the young city to the ground, but it rose—Phoenix like—more beautiful than ever. The floods swept over it, as with a besom of destruction, in the winter of '51 and '52, and the waters were rushing with irresistible force through every street. When they abated, the people went to work and built levees around their city, and fancied themselves secure. Again with the floods, in the winter of '61 and '62, Sacramento was inundated. To guard against a recurrence of these evils, the city bed was raised above the highest known tide, and instead of wearing away a levee, the angry waters find a solid mass of earth, on which stands the city, against which their efforts at destruction are futile. To one who has not resided on this coast, it may at first seem strange that a city should have been located in the midst of such dangers. When Sacramento was laid out, both the Sacramento and American rivers had bold banks above the reach of any floods. But when the thousands of miners commenced tearing down the mountains and pouring the debris into the rivers, the sediment gradually filled up the river bed from 12 to 18 feet above its former level. Consequently, when the spring sun unlocked the vast volume of water confined in the mountain snows, and sent it foaming and seething in its mad power to the plains, the old and half-filled channel could not contain it, and a large body of country was annually inundated. Levees were tried in vain; the mighty torrent would not be confined; hence the necessity of raising the city above its ravages. This has been accomplished; and beyond the present line of high grade, a powerful levee surrounds the unfilled portion of the city, on which is a railroad track, forming an iron circle or band, which no past floods had power to break.

Within the city are three flour mills, with a capacity of 1,200 barrels per day, in the aggregate; two foundries and machine shops, where engines and mill machinery are made; a woolen mill, a manufactory of beet sugar, and many others of lesser note.

The principal machine shops of the Central Pacific railroad are situated on the east bank of the Old Slough, between that and the American river, and with the tracks, yards, etc., cover about 20 acres. The buildings first erected are of wood, still standing and in use. The new buildings are of brick, comprising a machine, car, paint and blacksmith shops, round-house, and several other buildings. Nearly all the cars used by the company are manufactured here. It is a noted fact that the cars on both C. P. and U. P. R. R. are far superior in size, style and finish to those on the majority of the eastern roads, and for strength and completeness of the arrangements for comfort in riding, they have no superior on any road.

The Hospital belonging to the Railroad Co.—a large, airy and comfortable building—is located near the shops, where their men are taken care of when sick or disabled. It is well conducted, a credit to the company, and of incalculable benefit to those unfortunates who are obliged to seek its shelter. The company grounds cover 15 acres, which have been filled up to the grade with the sand and gravel from the bed of the American river.

The city is laid out in a regular square, the streets running at right angles, fronting on the Sacramento River, which here runs nearly north and south. They are numbered from the river, 1, 2, 3, etc. Those running from the river bank—or east and west—are num-

bered with the alphabet, A, B, C, etc. It is probable that in time that portion of the town which consists mostly of private residences, will be raised to the high grade; but whether it be raised or remain at its present grade, it is equally secure against floods, being hemmed in by the high grades and the levees, which are guarded and kept in repair by the railroad company.

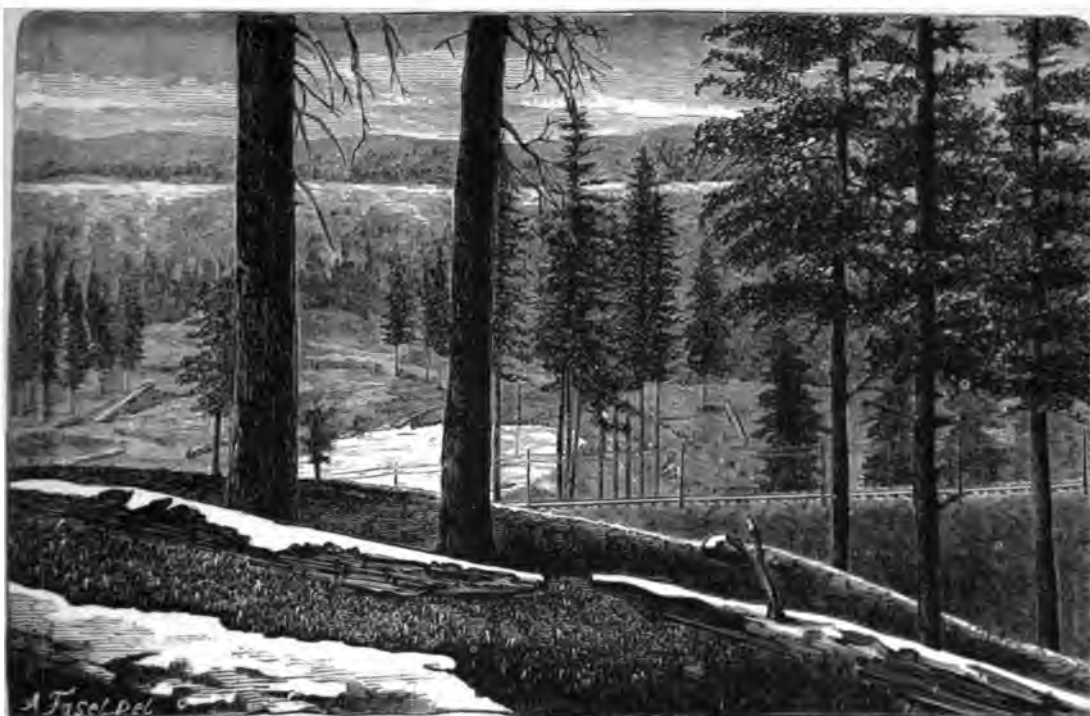
STATE CAPITOL OF CALIFORNIA—This is one of the first objects which meets the eye when approaching Sacramento from the east. It is a conspicuous landmark. The building occupies the centre of four blocks, bounded by 10th and 12th, and by L and N streets. The grounds form three terraces, slightly elevated above each other, and connected by easy flights of steps. They are regularly laid out, and covered with a beautiful sward, closely shaven by the lawn cutter. They are interplanted with shrubs and evergreen trees. The outer border of the lowest terrace is studded with flowers. Its front is towards 10th street, and is 320 feet in length. Approaching it from this point you may regard it as a great central building, from which rises the lofty dome, and having on each side a large wing. A flight of granite steps, 25 feet high by 80 feet in width, lead to a front portico of ten columns, through which, and a large hall, the rotunda of 72 feet diameter is found in the centre; and from this, in each story, halls, elegantly arched, extend through the front and wings, the State offices being on either side. Five female figures ornament the front above the columns. The central one is standing, the remaining four are in sitting postures. They represent war, science, agriculture and mining. The wings forming the flanks of the building are 164 feet above the first or basement story. The north and south flanks of the building form, respectively, the Assembly and Senate chambers, the former being 82x72, and the latter 72x62. In the rear centre, a circular projection of 60 feet diameter forms the State Library. The first story of 25 feet is of white granite, from neighboring quarries, and is surmounted by a cornice of the same. Above this the body of the main dome is surrounded by an open balcony, which is supported by 24 fluted Corinthian columns and an equal number of pilasters. Above this balcony the body of the dome is supported by an equal number of ornamented pilasters. From these rises the great metallic dome. From the top of this dome in turn rise 12 fluted Corinthian pillars, which support the final or small dome, and this is surmounted by the statue of California.

The whole interior is one solid mass of iron and masonry. The dome of the interior rotunda, which is of iron ornaments and brick work, is exceedingly handsome. The panels and pedestals under the windows are of the beautiful laurel, well known in California for its susceptibility to receive a high polish. All the first floor doors are of walnut, with laurel panels, as are also the sashes throughout the building. The stories are, respectively, 21 feet 6 inches, 20 feet and 18 feet in height. It covers, with its angles, nearly 60,000 surface feet of ground, and measures over 1,200 lineal feet round in all the angles.

We now propose to visit a few of the most prominent towns adjoining Sacramento, on the different lines of travel.

UP THE SACRAMENTO—We will now step on board of one of the California Steam Navigation Company's light-draft boats, which leave the city daily.

TULE LANDS—The first thing, after leaving the city, which attracts our attention, are these Tules. "Tuiles" is the native name given to the rushes, which cover the low lands along the rivers and bays of California. They are of the bulrush family—probably the father



FOREST VIEW NEAR DUTCH FLAT.

of all rushes. They grow from six to ten feet high, and so thick on the ground that it is extremely difficult to pass among them. The lands on which they grow are subject to annual overflows. During the prevalence of the floods, miles and miles of these lands are under water, presenting the appearance of one vast lake or an inland sea. In the fall and early winter, when the tules are dry, they are often set on fire, forming a grand and terrible spectacle, especially during the night. When once the fire attains headway, nothing can quench its fury until the tules are swept away to the bank of some water course, which bars its further progress.

The soil composing the land is *adobe*, of a purely vegetable mould. Wherever it has been reclaimed, it produces grain and vegetables in almost fabulous quantities. It is claimed by many, that, with proper appliances, these lands could be converted into magnificent rice fields; the advocates of this measure asserting that they possess every requisite of soil, climate, and adaptability to irrigation.

The State has provided for a system of levees, by which it is hoped the land may be reclaimed; and, should the result prove satisfactory, many thousand acres of the richest soil in the State will be opened, for occupancy by the emigrant. The country, after leaving Sacramento, is level for a vast distance on either hand; the "tules" are disappearing, and, before we reach Knight's Landing, the left-hand shore is more bold, and the wheat fields and gardens have taken the place of "tules" along the river bank.

If the traveler wishes to visit Marysville, he can do so by rail or water. We have already pointed out the former route. Now let us go, via FEATHER RIVER, a beautiful stream—its clear waters contrasting to advantage with the muddy waters of the river we have left. We pass through a fine country with wheat farms on

the higher lands, and reach Nicholas, a dull, quiet town of about 300 inhabitants, situated at the junction of Bear River with the Feather. Proceeding up the Feather, we pass HOCK FARM, the home of the venerable pioneer of California, General Sutter. It is a lovely place—the old farm-house and iron fort standing on the bank of the stream. Enormous fig trees line the bank, while behind them can be seen the fine orchards and vineyards planted by the General nearly 50 years ago. General Sutter settled in California under a grant from the Russian Government, which conveyed to him large tracts of land around Sacramento City, including the city site; also a large tract, of which Hock Farm is a part. Sharpers and swindlers deprived the old pioneer of most of his property, leaving him penniless, and a pensioner on the State.

Passing on by the junction of the Yuba and Feather Rivers, we soon reach Marysville, 65 miles from Sacramento, by water. [Description on a preceding page.] Returning to the Sacramento, the right-hand bank of the river appears low and swampy, covered with "tules" for a great distance inland. Passing on, we soon arrive at

KNIGHT'S LANDING—A small place—46 miles from Sacramento. It is quite a shipping point for Yolo County, and is on the line of the California Pacific Railroad to Marysville. Population, 800.

For a long distance above Knight's Landing the low marshy plains continue on our right, the higher land covered with wheat on our left, with no towns of any importance to note until we arrive at

COLUSA—This is a point of considerable trade—125 miles from Sacramento. It is the County seat of Colusa County, situated on the west bank of the Sacramento River, and contains about 1,200 inhabitants. The *Colusa Sun*, is published here.

The town was laid out in 1850, by Colonel Semple,

the owner of the "Colusa Grant"—containing two Spanish leagues. It is now the centre of a very large farming and grazing country. Schools and churches are well represented. Stages run daily between Colusa and Marysville—29 miles. The HOT SULPHUR SPRINGS of Colusa County are situated 20 miles west of the town, and are somewhat noted as a resort for invalids. Sulphur is also found in large deposits.

Passing on up the river, the country seems to gradually change to a grazing, instead of a grain country, more especially on the west. 199 miles brings us to CHICO LANDING. As we have already described the town, we will pass on up the river. On the right hand side, the shores are low and sedgy most of the way, fit only for grazing when the floods have subsided; yet we pass intervals of grain fields till we arrive at Red Bluffs—270 miles from Sacramento, at the head of navigation. [See previous description of the town.] Returning to Sacramento, we take the cars of the CALIFORNIA PACIFIC RAILROAD, and cross the Sacramento River on their new bridge, which is 600 feet long, and one of the finest structures of the kind in the State.

WASHINGTON—Is the first town—just across the river, with a population of 809. Leaving Washington, we cross the "Tules"—a broad belt of overflowed swamp land—on an embankment and trestle bridge, raised above the annual floods, until we reach the highlands, or elevated plains. The trestle bridge affords ample passage for the flood tides.

DAVISVILLE—Is the next town—14 miles west on the road from Vallejo to Marysville, via Woodland. It has a population of about 800. The *Advertiser*, a weekly paper, is published here. Davisville is in the midst of a fine wheat country, and will remain a point of shipment for the vast crops annually raised in that vicinity.

Turning to the northward, the next station of importance is

WOODLAND, the County seat of Yolo County—9 miles distant. It is situated three miles west of Cache Creek, in the midst of an extensive plain. The town is one of the most thriving in the State. Population about 2,000. Yolo County, in the Summer, is one vast wheat-field—far, almost as the eye can reach, the waving wheat stretches away on either hand.

It is a sight worth seeing—to behold these fields of grain, and to observe the process of harvesting them. Through this wheat country we find few fences—often seeing none in half a day's ride.

From this place large shipments of grain, wood, and live stock are made daily.

The Marysville branch of the California Pacific Railroad is now completed via Knight's Landing, 10 miles; Sutter, 11; and Marysville, 12 miles. Distance from Sacramento to Marysville, by this route, 56 miles. The main trunk of this road is surveyed to extent from Woodland via Colusa to Red Bluff. As the above named towns have been described on other routes, we will now return to Davisville, and start south, through as beautiful a section of country as one would wish to see. The stations passed are: Dixon, 3 miles; Batavia, 5 miles; Vaca, 10 miles; Fairfield, 5 miles; Bridgeport, 4 miles; Summit, 4 miles. Here we are in the SUSCOL HILLS, which border San Pablo Bay. These hills are very productive, the soil being adobe. To the tops of the highest and steepest hills the grain fields extend, even where machinery cannot be used in harvesting. In the valley through which we have passed are several thriving towns, but we have not time to name them—besides, the railroad does not go near enough for us to see them. Passing through a tunnel, to reach which we ascend a heavy grade, we descend into the valley bordering the bay. Seven miles

brings us to NAPA JUNCTION, where connections are made with the NAPA VALLEY RAILROAD for Suscol, Napa City, and St. Helena, to Calistoga—36 miles.

Passing on, we leave the old town of Vallejo on our right. Seven miles further, making 60 miles from Sacramento, and we arrive at

VALLEJO—The town is situated on the southeastern point of the high rolling grass-covered hills bordering Vallejo Bay, which is about 4 miles long, and half a mile wide, with 24 feet of water at low tide. The harbor possesses excellent anchorage, and vessels are securely sheltered from storms. The largest vessels find safe waters; and here are laid up the United States ships when not in use on this coast. The naval force, including the monitors, on this side, all rendezvous here. On MARE ISLAND, just across the bay, are the Government works—dry docks, arsenals, etc. The finest section dock on the coast is located on the island, just in front of the town. Ferry-boats connect with the main land and city. About 500 men are constantly employed at the Government works, though at times the number is much greater.

The population of Vallejo is 6,440. It has three newspapers—the *Chronicle*, the *Recorder*, and the *Solano Democrat*. It has some fine buildings—churches of different denominations, public and private schools, and one public library of over 7,000 volumes. The Orphan Asylum, a fine structure, stands on an elevation to the east of the town, and can be seen for a great distance. There are several good hotels at Vallejo. The cars on the railroad are so constructed as to take grain in bulk and carry it to an elevator, where it is raised and stored. On the opposite side ships of the deepest draught moor, and the grain is discharged into their holds.

Vallejo is a port of entry. A great many vessels are loaded here with grain for Liverpool, and other foreign ports. It is also the southern terminus of the California Pacific Railroad, which connects here with the steamer New World for San Francisco—23 miles distant.

Again returning to Sacramento, we will this time take the steamer

DOWN THE SACRAMENTO.—The plains stretch away on either hand, and there is little to be seen except the gardens and farms along the banks on the higher ground, the wide waste of "tules," and the plains and mountains beyond. On the left—away in the dim distance, the hills succeed the plains, the mountains the hills, until the vast pile towers among the clouds.

Winding around curves, where the stern of the boat is swept by the willows on the shore, we glide down the river, past sloughs, creeks, and tule swamps, until we pass FREEPORT, 12 miles from the city, a little hamlet of half a dozen dwellings.

Floating along between the low banks, covered with willow and shrub, we pass MISSISSIPPI BEND—24 miles from Sacramento. Here the river makes one of its numerous curves, almost doubling back on itself.

To the left is the little town of RICHLAND, containing a half dozen dwellings. Now the Nevada Mountains fall behind, and we have one vast plain around us. We pass the outlet of Sutter's Slough, and then the Hog's Back—a long sand-bar, which stretches diagonally across the river. The water here is very shoal. A wing dam has been built from the western shore, half way across the channel, which throws the water into a narrow compass, giving greater depth on the bar. Next comes Cache Creek Slough, on which large quantities of grain are shipped to San Francisco via Sacramento River, from Yolo and Solano counties. Now we are passing along by the Rio Vista hills, which come close



III. GAA Shits. See description page 100

to the water's edge on the right hand shore. These hills are the first we have seen near the river since leaving the city. They consist of one long low ridge, broken into hillocks on its crest. These hills are excellent wheat land, yielding an abundant harvest. The land is very valuable, though but a few years have passed since it was sold for 25 cents per acre. The town of RIO VISTA is situated on the slope of the foothills, and contains about 300 inhabitants. Formerly the town stood on the low ground, near the river bank, but the flood of '62 washed it away, carrying from 40 to 60 houses down the river. The people fled to the high lands, where they remained until the passing steamers took them away. For days the little steamer Rescue was plying up and down the river, running far out over the submerged plains, picking up the "stragglers," who were surrounded by the waters. Some were found on the house-roofs, with the flood far up the sides of their dwellings, and others were rescued from the branches of trees, which afforded them the only resting-place above the waters. The flood of '62 will long be remembered by those who then dwelt on the banks of the Sacramento.

We next pass COLLINGSVILLE, a long wharf on the right hand side of the river, with a house or two standing close by. It is a point of shipment of considerable freight, for the country, and grain, for the city. A little below this point, the San Joaquin River unites with the Sacramento, entering from the left, forming *Suisun Bay* (pronounced Soo-e-soon).

ANTIOCH—just across the bay—is in Contra Costa county. Population, 500. Three miles south, by railroad, are the Mount Diablo coal mines, several in number; one of which furnishes 1,000 tons per month for shipment at Antioch. There are several manufactories of pottery in the town—the clay in the vicinity being a very superior article. The *Ledger*, a weekly paper, is published here. Attention has lately been attracted to the silk culture, and many thousand mulberry trees have been planted. It was one of the citizens of Antioch that "got away" with the State premium of \$250, which was awarded by Act of 1868, for the encouragement of silk culture. *But we will excuse him.*

Passing on down the bay, we enter the Straits of Carquinez, when a long, low wharf on the right attracts our attention. It is fronting the town of

BENICIA—formerly the capital of the State, at the head of ship navigation, and contains about 1,600 inhabitants. It is a charming, quiet, rambling old town, with little of the noise and bustle of the busy seaport.

A narrow gauge railroad is now being constructed northward, with Red Bluffs as its objective point.

The United States arsenals and barracks are located near the town, forming an interesting feature to the visitor. Benicia is justly celebrated for her excellent schools, public and private. The only law school in the State is located here, and also a young ladies' high school, or seminary. It is connected by steamers with Suisun, Sacramento, Stockton, and San Francisco: by stage with Vallejo, seven miles west, over the rolling hills; and by hourly ferry—two miles distant, across the Straits—with

MARTINEZ—the county seat of Contra Costa county. This is a small town of about 600 inhabitants. It has one weekly newspaper—the *California Express*. The county is principally devoted to agriculture and vine culture, the vineyards being numerous, producing over 70,000 gallons of wine per annum. The Alhambra Branch, two miles from town, owned by Dr. Strenzel, is thought to be the best for its size in the State. It

contains over 30,000 grape vines, and 5,000 fruit trees. Its proprietor has been awarded a large number of medals and prizes for the "best cultivated farm," the "best fruit," and the "best native wine in California."

Passing on down the straits, we have a fine view of Vallejo, which lies to our right, near where we enter San Pablo Bay. Turning to the left, twenty miles more brings us to San Francisco.

But we must return once more to Sacramento—and this time take our old seat in the cars of the Trans-Continental Railroad, bound for "Frisco"—or the "Bay"—as the city of San Francisco is called by the older "Pilgrims;" so, good-by, Sacramento.

Speeding along on the very bank of the river, then through well cultivated gardens and fields, it is five miles to

BRIGHTON—Here we learn that the cars of the Sacramento Valley Railroad—managed by the Central Pacific Company—run down on the same track as the Central to this station, where they branch off—let us step into them, and see where they go. Patterson's is 5 miles, Salsbury's, 6 miles, Alder Creek, 3 miles, and 3 miles more bring us to

FOLSOM—twenty-five miles east from Sacramento, in Sacramento County, on the south bank of the American River. Population, about 2,000. The *Telegraph* is published here—weekly. Vine culture is an important industry. Some of the finest vineyards in the State are near here, including the Natoma, which is celebrated for its fine quality of raisins and wine. To the north and east of the town, placer mining is the principal business; to the south and west, farming and grazing.

There are extensive granite quarries in the vicinity. From the bed of the river, near this point, large quantities of cobble-stones have been obtained, taken to Sacramento, and used in strengthening the levees around the City. Most of the cobble pavement in San Francisco was obtained from the same source.

Folsom is ornamented with shade and fruit trees, and has many fine public and private buildings, with magnificent scenery.

Regular stages leave for Coloma daily, via Mormon Island, Salmon Falls, and Greenwood Valley—24 miles distant.

Passing on, 7 miles brings us to White Rocks, 8 miles to Latrobe, and 11 miles to Shingle Springs, the end of the railroad, 48½ miles from Sacramento.

PLACERVILLE—Is twelve miles from Shingle Springs, with which it is connected with daily stages. It is the County seat of El Dorado County, 60 miles east of Sacramento, at an altitude of 1,880 feet above tide—present population, about 2,000.

Who has not heard of Placerville, El Dorado County? It was in this county, at Coloma, 8 miles north-east of the City, where the

FIRST GOLD DISCOVERY

was made—January, 19th, 1848—by J. W. Marshall, in the mill-race of General Sutter. The announcement of this discovery caused the wildest gold fever excitement ever experienced, not only in America, but in every part of the civilized world.

The news of these rich discoveries sped with the wings of the wind, and thousands, yes, tens of thousands in the Atlantic States, left homes, friends, and all they held dear, to make their fortunes in this the new El Dorado. With many the excitement became intense, ships, steamers, barks, brigs, and all manner of sailing vessels were chartered or purchased for a trip "around the Horn;" and no sacrifice was thought to be too much to make to procure the necessary outfit for

the expedition. Again, there were thousands who, choosing the land, boldly struck out towards the setting sun, to cross the *then* almost unknown trackless deserts, and pathless mountains. Horses, mules, and cattle were pressed into service, as well as all kinds of conveyances, while many started with hand-carts, propelling them themselves, upon which they packed their tools and provisions for the trip. Again, others started on foot, with only what they could pack on their backs, "*trusting to luck*." Very few, if any, had a thought of the privations to be endured, or the obstacles to be overcome, so anxious were they to arrive at the Land of Gold.

Those who came by water, passed in at the Golden Gate and up the Sacramento, while those by land, came pouring over the Sierra Nevada mountains, by natural passes, down, down into this beautiful valley, where a city of many thousands suddenly sprang into existence. From a "little unpleasantness" the place was first known as "Hangtown," but in 1852 it was changed to Placerville, which indicated, at that time, the nature of the mining done in the vicinity. Of the many thousands who started across the plains and mountains, hundreds died by the wayside, and were buried by their companions, while the greater number were "lost" by the hand of the *friendly* Indian, or, the *hostile* Mormon.

It has been estimated, and we think correctly, that could the bones of these emigrants be collected, and those of their animals, together with their wagons and carts, in one continuous line, between the Missouri river and the Pacific coast, since the rush commenced in 1848, they would be *more numerous* and *closer together* than the telegraph poles on the line of the Pacific Railroad across the Continent.

The early mining done about Placerville was by hand, the Pan, Rocker, and Long Tom; these have long since given place to the Quartz Mills—there are 32 in the county—and the Hydraulic process, by which nearly all the mining is now done.

Vine culture and fruit culture are now the most important occupations of the people of the county. Fresh and dried fruits are shipped by the hundreds of tons, while the annual crop of wine and brandy produced is over 300,000 gallons. Herr Schnell, a Prussian, is the founder and manager of a colony of Japanese, who settled near the town some years ago, and engaged in the cultivation of the tea plant. It is reported they have over 90,000 plants set out and growing finely; also, 75,000 mulberry trees, the latter to feed a new variety of silkworm, from which they expect extraordinary results.

Placerville contains a goodly number of schools, and churches of almost every denomination, including a "Joss" House." The different secret orders are well represented, and a newspaper—the *Democrat*, makes its appearance every week.

Placerville is situated in what is known as

THE FOOT-HILLS,

as the chain of broken land is called, which lies between the Sierra Mountains and the plains, extending from Fresno county on the south, through Tuolumne, Calaveras, Amador, El Dorado, Placer, Nevada, Yuba, Butte to Tehama, on the north, comprising nearly one fourth of the arable land of the State. The soil is altogether different from that of the valleys, being generally of a red gravelly clay and sandy loam. In the little valleys which are found among these hills, the soil is generally a black loam—the product of the mountain washings. Experiments, however, have decided the fact that these foot-hills are the natural vineyards of California. In El Dorado and Placer counties, on these sandy foot-

hills, are now the finest vineyards in the State, from which are manufactured fine wines and raisins. Here among these hills are as cosy homes as one could wish to have, where grain, vegetables and all kinds of fruit are raised in abundance, while thousands of acres are lying vacant, awaiting the emigrant.

The mulberry tree and the silkworm are cultivated to some extent in the foot-hills, and this branch of industry is lately receiving considerable attention.

Again we return to the TRANS-CONTINENTAL, which we left at Brighton, five miles south of Sacramento.

FLORIN—Is four miles from Brighton. The traveler has probably noticed several wind-mills along the road, before arriving at this station. The CALIFORNIA WIND-MILL is a great institution in its way. They seem to have been brought to a greater state of perfection on this coast than anywhere else. From this place we will find them to increase until we get to the "Wind-mill City," as Stockton is often called, where they can be seen in great numbers, in every direction. Many times the water is pumped into reservoirs built on the tops of the houses, resembling a cupola, from which pipes take the water to the different rooms throughout the house and grounds; the waste water is conducted into the gardens and fields for irrigating purposes. These mills are numerous in San Francisco and throughout the State.

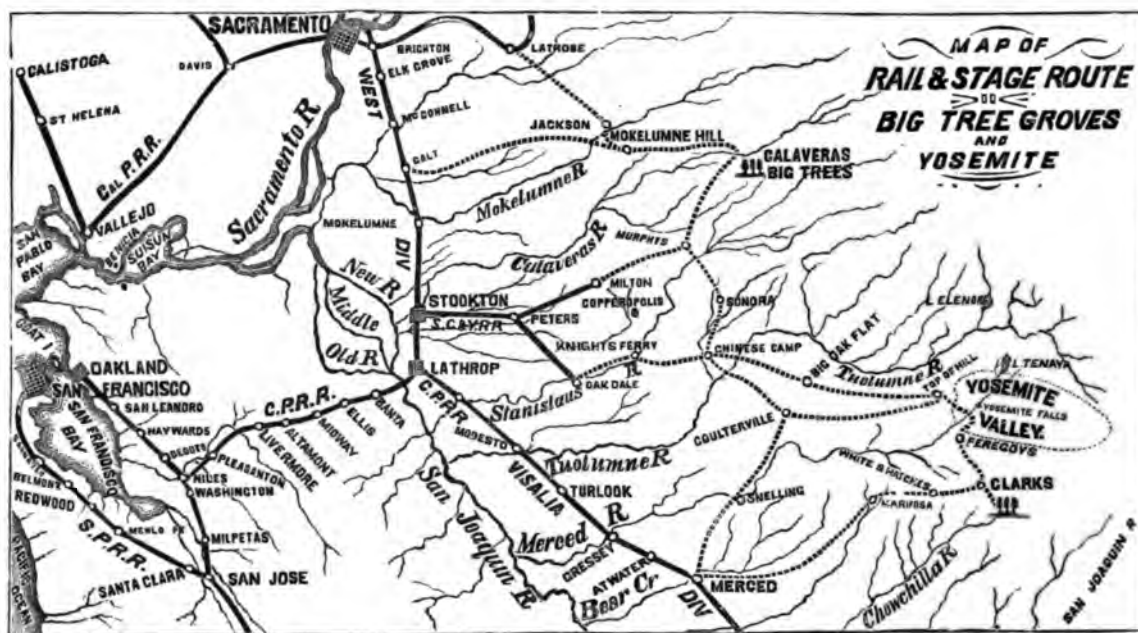
ELK GROVE—Six miles from Florin. The beautiful valley through which the road passes is spreading out before us, and we begin to realize that nature has done sufficient for this "sunset land," to entitle California to all the praise that has been bestowed upon her.

McCONNELL'S—Is a small signal station, four miles from Elk Grove. Before reaching the next station, we cross Cosumnes river, which rises in the mountains to the north-east. The bottom lands are very wide, and covered with white oaks. This stream gets high in the spring, but very low in the summer.

GALT—Eight miles further south. Here a regular stage line leaves for the



CALAVERAS BIG TREES, seventy miles distant. (See map of route, further on.) There has been, up to the present time, ten "Big Tree



Groves" discovered on the western slope of the Sierra Nevada mountains, numbering from 92 to 1,000 trees each, and ranging in height from 250 to 321 feet, with a circumference, at the ground, of from 60 to 95 feet each.

The largest ever discovered is called the "Father of the Forest"—now prostrate—and measures 435 feet in length, and 110 feet in circumference. It is in the Calaveras grove. The elevation of this grove above tide is 4,375 feet. The trees number 92, ranging from 150 to 321 feet in height. The most notable are the "Father of the Forest," as above stated; the "Mother of the Forest," 321 feet high, 90 feet in circumference; "Hercules," 320 feet high, 95 feet in circumference; "Hermit," 318 feet high, 60 feet in circumference; "Pride of the Forest," 276 feet high, 60 feet in circumference; "Three Graces," 295 feet high, 92 feet in circumference; "Husband & Wife," 252 feet high, 60 feet in circumference; "Burnt Tree"—prostrate—330 feet long, 97 feet in circumference; "The Old Maid," "Old Bachelor," "Siamese Twins," "Mother & Sons," the "Two Guardsmen," and many others, range from 261 to 300 feet in height, and from 59 to 92 feet in circumference. Of over 350 Big Trees in the Mariposa grove, 125 are from 250 to 350 feet in height, and 40 feet in circumference. The "Rambler" is 250 feet high, and 102 feet in circumference at the ground.

The route from Galt is, via Ione City, 24 miles, 10 more to Jackson, 3 to Amador, and 4 more to

MOKELUMNE HILL,

(Pronounced Mokel-m-ne.) County seat of Calaveras county—41 miles in all. This is one of the early mining towns of the State. Placer mines were worked as early as 1848, and are worked to some extent at the present time; but quartz mining and agriculture are the principal occupation of the people. It is a pretty little town; the streets are ornamented with shade trees on each side, and has some beautiful gardens and private residences, with good schools and churches, several good hotels, and one weekly newspaper—the *Chronicle*—the oldest paper in the State. Population 1,200. Stages connect the place with all the principal mining

towns in the vicinity, and with the Big Tree Grove, 29 miles distant. The hotel accommodations are ample at the grove, and in fact at all the groves, and in Yosemite Valley. Returning to Galt

ACAMPO—Is the next station, five miles south, but trains seldom stop.

LODI—Three miles further, was once called Mokelumne station. To the southward—away to the right—35 miles distant, can be seen

MOUNT DIABLO,

which rises clear and grand from out the plains, an unerring pilot to those who wandered across these once trackless plains that now are teeming with life and industry. It is situated in the Contra Costa Range of mountains, and is the meridian point in the land surveys of the State. Elevation 3,876 feet. The view from the summit includes the country and towns around San Francisco, San Pablo and Suisun bays, and the valleys of the Sacramento and San Joaquin rivers. It is reached by steamboats from either San Francisco, Stockton or Sacramento.

CASTLE—Is six miles from Lodi. Our train rolls along through fine broad bottom lands, dotted here and there with white-oak trees, which, at a distance, appear like an old New England apple-tree.

Six miles further, just before reaching the next station—on the right, that large building is the **STATE INSANE ASYLUM**. The grounds devoted to the use of the asylum occupy 100 acres. The first building in view is the male department; the second, the female. We are now in the suburbs of

STOCKTON—The County seat of San Joaquin County. Population 10,033. Elevation, 23 feet. The city was named in honor of the old naval commodore of that name, who engaged in the conquest of California. It is situated on a slough, or small bay, of the San Joaquin River, at the head of navigation. Yet steamboats of light draft ascend the river (San Joaquin) 275 miles farther. Stockton is situated in the midst of level plains, celebrated for their great yield of grain. It is



YO SEMITE FALLS—2,634 FEET FALL. YO SEMITE VALLEY.

the centre of an immense grain trade, most of which is shipped to foreign ports. In early times, the only trade depended upon for the support of the city, was derived directly from the working of the mines to the eastward. This trade is still retained; but, compared with the tremendous grain trade which has sprung into existence within the last few years, sinks to a unit. The city has many beautiful public and private buildings, 13 churches, 14 public and many private schools; is lighted with gas, and well supplied with water, the latter from an artesian well 1,002 feet deep, which discharges 360,000 gallons per day—the water rising 10 feet above the city grade. There are several good hotels: the "Yo-Semite" and "Lafayette"—the latter on the *European plan*—are the most prominent. The newspapers are the *Independent*, daily and weekly; the *Herald*, daily; the *Gazette*, weekly; and the *Observer*, weekly. The private residences and gardens of the citizens are certainly very tastefully ornamented with all kinds of vines, shrubbery, and flowers.

The soil around Stockton is "adobe"—a vegetable mould, black and very slippery, and soft during the rainy season. This extends southward to the Contra Costas, and west about five miles, where the sand commences and extends to the river.

Stockton, until the last two years, was the starting point for several stage lines for the towns to the eastward—to the Big Trees, Yo Semite, etc.; but the stages have given place to the Stockton & Visalia and the Stockton & Copperopolis Railroads, which now run to Peters—15 miles—where a branch turns northward to Milton—30 miles—and another southward to Oak Dale—34 miles.

Stages leave Milton for the Calaveras Big Tree Grove, and for all important towns and mining camps to the north and eastward.

Stages leave Oak Dale for Chinese Camp, Sonora and other mining towns.

Coaches, during the past season, left Oak Dale on

arrival of trains passing through Chinese Camp, Coulterville or Big Oak Flat, to within a few miles of Yo-Semite Valley, when saddle animals convey the tourists into the valley. Distance, by rail, from Stockton, 34 miles; by stage, 75 miles; by saddle, 3 miles. Total, 112 miles; but we hear this line will be discontinued in future.

This is a great country for rapid changes. Where to-day there are only stages, to-morrow there may be palace cars; so that it is almost impossible for us to keep up with the times.

LATHROP—Is nine miles south of Stockton, at the junction of the "Visalia Division" of the Central Pacific Railroad. Here the Railroad Company have erected a fine, large hotel, before which trains stop 30 minutes, to afford passengers an opportunity to take a meal, which costs the moderate sum of 50 cents—coin. The new route to Yo-Semite Valley and the Mariposa Grove of Big Trees is via Visalia Division, from Lathrop station. Will you go along? This road leads up the

SAN JOAQUIN VALLEY.

(Pronounced San Waw-keen.) This valley is larger than many kingdoms of the old world, and *far richer*, extending to Visalia, county seat of Tulare county. The amount of grain and stock raised in this valley, and its hundred of smaller ones tributary to it, is almost incredible for a country so recently settled. There are millions of acres of government land in the adjoining valley, *lying idle, awaiting the emigrant*;—as good land as the sun ever shone upon, which can be pre-empted at \$1.25 per acre, or taken up under the Homestead Act. The valley is over 250 miles in length, with an average width of 30 miles—its greatest width, 140 miles. It embraces portions of nine counties, and, with the numerous tributary valleys, comprises over six million acres of the richest agricultural lands in the State, together with one million acres of "Tule"

and salt marsh land, which, when reclaimed, proves to be the most fertile land in the world. To the above might be added six million acres of adjoining grazing, mineral, and valuable mountain lands, and you have a country capable of sustaining some hundreds of thousands of inhabitants. The foot-hills—and in fact the whole country—abound in wild oats, which are indigenous to the soil, and upon which stock thrive and fatten remarkably. These oats are cut, when green, for hay. Wheat, barley, oats, and in fact all kinds of grain, and every description of vegetables, fruit and flowers, are produced in abundance. Experiments in cotton and tobacco have proved a success. The climate is very desirable, pleasant and invigorating.

This road opens up a rich country for a distance of nearly 200 miles, extending beyond Visalia, the county seat of Tulare county, affording ready means of transportation for the grain and stock raised in this immense valley; and, as it will ultimately be a connecting link of the Southern Pacific Railroad, north and south, it must prove of untold advantage to the country opened up, and to the State at large, as well as to the enterprising company constructing it. At the time we write, the road is completed to Delano, 188 miles from Lathrop, and trains running on schedule time.

VISALIA—the county seat of Tulare county, is ten miles from Tulare station, and 167 miles from Lathrop. It contains about 1,600 inhabitants, and is situated in the midst of the most fertile land in the State, and on the Kaweah river. The country round about presents to the eye a beautiful appearance. Large oaks cover the plain in every direction, and orchards, gardens, vineyards, and well-cultivated fields are to be seen on every hand. Visalia is the centre of the rich section once known as the "Four Creek country."

Leaving Lathrop, passengers go to

MERCED—fifty-seven miles. By reference to the accompanying map, it will be seen there are two stage routes from Merced (see dotted line)—one is known as the "Coulterville Route," via Snelling, a small town of 200 inhabitants. Taking this route, ten miles from Coulterville, at Marble Springs, is Bower Cave; 16 miles from Coulterville is Black's House, where "Pilgrims" can remain over night. From Hazel Green—elevation 6,699 feet—a fine view of the great San Joaquin Valley can be obtained.

At Crane Flat—34 miles from Coulterville—a trail leads off to the Tuolumne Grove of Big Trees—one mile distant. There are 24 trees, the largest being 36 feet in diameter. The first view of Yo-Semite is had at Valley View, 45 miles from Coulterville, and 12 miles from Yo-Semite. Distance by this route about 100 miles.

The other route leads directly to the town of

MARIPOSA—County seat of Mariposa county—45 miles. This town contains about 1,000 inhabitants. Once noted for its rich placer mines, but now quartz mining is the principal occupation of the people. In Bear valley are the mills and mines (or a portion of them) belonging to the "Las Mariposa Grant," or the Fremont estate, as it is usually called. The Benton mills are on the Merced river, about two miles from the town, reached by a good dug road, down a very steep mountain.

In Mount Ophir and Princeton, a mining town near by, are large quartz mills, belonging to the estate, and extensive mines.

From Mariposa, 25 miles brings us to Clark's, where the traveler will take saddle-horses the balance of the way. (Here a trail branches off to the Mariposa Grove of Big Trees—427 in number—the largest being 34 feet in diameter.) From Clark's, the trail leads through

Alder Creek, Empire Camp, and the far-famed Inspiration Point." From the latter is obtained grand view of this wonderful valley, lying 4, below the "Point." Distance from Clark's to ley, 20 miles. Total from railroad to Yo-Semite this route, 94 miles. It will be seen the saddle is the shortest, as well as the through route; express no preferences, as each has its own attractive features. Should the tourist enter the valley by one route, and return by another, little scenery will be overlooked.

LATER: A new road has recently been opened for tourists are taken into the valley, *all the way*, the particulars of which did not come to hand for this edition of the TOURIST.



Mr. J. M. HUTCHINGS, whose portrait appears here, was one of the early explorers and first settler in the Yo-Semite Valley, where he still resides. He came to California, in 1849, since which time, he has been engaged in surveying mining, writing, publishing, lecturing, etc., and has, undoubtedly, done more to make known to the people of the world the wonderful Yo-Semite, the Big Trees, and the California scenery, than any other person. Mr. Hutchings' lectures, accompanied with views of remarkable scenery, as shown by a Stereopticon, are intensely interesting and instructive to none more so than those who become familiar with the scenes as they appear in nature.

No visitor to this coast ever thinks of leaving the coast without viewing the wonderful

YO-SEMITA VALLEY AND THE BIG TREES

The grandest scenery on the American continent, not in the world, is to be seen in the Valley of

Semite (pronounced Yo-Sem-i-te; by the Indians, Yo-Ham-i-te). This valley was first discovered by white men in March, 1851, by Major Savage. It is about eight miles long, and from one half to a mile in width. The Merced River enters the head of the valley by a series of waterfalls, which, combined with the perpendicular granite walls which rise on either side from 2,000 to 6,000 feet above the green valley and sparkling waters beneath, presents a scene of beauty and magnificence unsurpassed, except, possibly, in childhood's fairy dreams.

Here is majesty?—enchancing—awe inspiring—in-describable—The lofty cloud-capped waterfalls and mirrored lakes; the towering, perpendicular granite cliffs and fearful chasms, strike the beholder with a wondering admiration impossible to describe.

We have often desired to take our readers with us, in a pen and pencil description of this most remarkable valley, and the "Big Trees," but in view of our limited space, the magnitude of the undertaking, together with our conscious inability to do justice to the subject, we have contented ourselves by giving a number of beautiful illustrations, which include the great Yo-Semite Falls, Nevada Falls, Mirror Lake, and a map of the routes and the surrounding country, showing the relative position of the valley, trees, and adjoining towns to the railroad.

The most notable falls in Yo-Semite Valley are: the Ribbon, 3,300 feet fall; the Upper Yo-Semite, 2,634 feet; the Bridal Veil, 950; the Nevada, 700; the Lower Yo-Semite, 600; the Vernal, 350 feet. The South Doom is 6,000 feet high; the Three Brothers, 4,000; Cap of Liberty, 4,240; Three Graces, 3,750; North Doom, 3,725; Glaciers Point, 3,705; El-Capitain, 3,300; Sentinel Rocks, 3,270; Cathedral Rocks, 2,690; Washington Tower, 2,200; and the Royal Arches, 1,800 feet high.

In conclusion, we would refer those of our readers who desire full information concerning this wonderful country, to "Scenes of Wonder and Curiosity in California," by J. M. Hutchings, of Yo-Semite. This book is a thorough guide-book of Yo-Semite Valley, profusely illustrated, vividly describing every object of interest, step by step, with facts and figures, telling just what the tourist wants to know.

Returning to Lathrop, it is three miles to the
SAN JOAQUIN BRIDGE

over the river of that name. Here the cars come to a full stop before crossing, to be sure to guard against accidents—as the bridge has a "draw" for the accommodation of the river boats. This company has a rule for all their employees, and a "GOLDEN" ONE IT IS, that "In case of uncertainty, always take the safe side." This rule is well observed; few "accidents" take place on the roads operated by this company—for the reason that the road is constructed with good materials, and in the most substantial manner, with all its equipments of the first class. The officers are thorough practical men, who never discharge an employee, on any consideration, who has proved to be a competent man for his position, simply to make room for a favorite, or a worthless "cousin."

Crossing the bridge, the long range of the Contra Costa mountains looms up in the distance directly ahead, and extends a long distance to the right and left on either hand, as though to effectually stop our progress. We cannot see any place to get through or over them, yet we are sure San Francisco is on the other side.

BANTAS—Four miles from the bridge, is reached after passing over a broad bottom, the soil of which is a

rich deep sandy loam and very productive.

Stages leave this station on arrival of trains for San Joaquin City, 10 miles; Graysonville, 20 miles; Perry's Ranch, 30 miles; Mahoney, 35 miles; Crow's Landing, 35 miles; and Hill's Ferry, 41 miles. Time, 12 hours. Fare, \$4.00.

After leaving the station, we have witnessed, on several occasions, by looking away to the right, that curious phenomenon, the mirage, which is often seen on the desert. (See description, page 117).

ELLIS—Is 5 miles further west, situated in the midst of a beautiful valley, which is rapidly settling up. The coal mines of Corral Hollow are 14 miles distant from this station to the south-east, connected by rail track. The Central Co. use large quantities of this coal—besides transporting it to San Francisco, and other cities and towns. Since leaving the last station we have gained altitude, this station being 76 feet elevation. Another engine will be attached here, as the grade increases rapidly after leaving this station until we get to the summit of the mountain.

MIDWAY—Formerly called "Zink House," is six miles from Ellis. Elevation, 357 feet. Soon after leaving the station, we enter the bluffs, pass through deep cuts and over high fills, our two iron horses puffing and blowing furiously as they labor up the heavy grade. These bluffs are heavy sand, and almost destitute of vegetation. To our right can be seen the old wagon road, but now almost deserted. Still upward and onward, the long train thundering around this jutting point, and over that high embankment, twisting and turning, first to the right, and then to the left, like some huge serpent, while the bluffs seem to increase in height, and the cañon narrower and darker at every turn, until, at last, we are plunged into total darkness, and the tunnel of Livermore Pass. This tunnel is the only one on the road from Sacramento to San Francisco; is 1,116 feet long, supported by heavy timbers. (See Illustration, page 147).

ALTAMONT—Eight miles further—just after emerging from the tunnel. Elevation, 740 feet.

The train is now rapidly descending through a narrow cañon, down into one of the loveliest little valleys in the whole country.

PLEASANTON—Is reached six miles from Altamont, after crossing a long bridge.

This town contains about 500 inhabitants, and is beautifully situated in the midst of the valley, surrounded by high mountain ranges, and is rapidly improving. Elevation, 351 feet.

Leaving the station, the mountain again looms up directly ahead, and looks to be impossible this time to get through; but soon the train passes around, or through several mountain spurs, and emerges into a narrow cañon, down which ripples the sparkling Alameda creek. The bluffs on each side are steep, and covered with scrub oaks, wild oats, and bunch grass. Live oaks, with long, drooping, moss-covered boughs—some very large—grow on the banks of the creek, presenting, at a distance, the appearance of an apple-tree loaded with fruit. On we go, down, down, first on one side the creek, then on the other, the bluffs drawing in close on both sides, through deep cuts, over high bridges, with rapidly changing scenery on either hand, when the engine shrieks a signal, and dashes past the old San Jose Junction station—now called SROZ—the track of which can be seen on the left. On, on past the old "Vallejo Mill," the track curves to the westward, and 11 miles from Pleasanton arrives at

NILES.—Elevation 86 feet. From Livermore Pass we have been rapidly descending, and now we are in the valley, which continues to San Francisco Bay.

Niles is situated in the thickest settled portion of Alameda Valley, surrounded by the finest lands in the State of California, and will, at no distant day, be a place of considerable importance. Seven miles to the south, by rail, are the noted warm springs of Alameda county.

Niles is now the junction of the San Jose branch, which runs through the valley of Alameda, around the head of San Francisco Bay. As the train for San Jose is ready, let us step on board and take a look at the country. Four miles brings us to WASHINGTON, and three more to the WARM SPRINGS, where the traveler will find ample accommodations for a pleasant sojourn. These springs are situated a short distance from the station, in a quiet little valley among the foot-hills, rather retired, surrounded by attractive scenery. The waters are impregnated with sulphur, and are highly spoken of for their medicinal qualities. From the Springs it is four miles to MILPETAS, and seven more to

SAN JOSE CITY.—(Pronounced San O-za). Population 9,069. The county seat of Santa Clara county. It is the largest town in Santa Clara Valley, and in population the fifth in the State. It was first settled by the Spanish missionaries, in 1777. The city is lighted with gas; the streets are macadamized, and ornamented with rows of shade trees on each side. Artesian wells, and the "California Wind Mill," together with a small mountain stream, abundantly supply the city with good water. The *Alameda*, or grove, was planted in 1799. It is by far the prettiest grove of planted timber in the State, and by many people it is claimed that San Jose is the prettiest city in the State. It is certainly one of the best improved, and there are none more beautiful. Its orchards, vineyards and shade trees; its fine private and public buildings, and the delightful climate of the valley, render it a favorite place of summer resort.

San Jose and Santa Clara—three miles distant—are noted for their educational institutions, where some of the finest in the State are located. The convent of Notre Dame, the San Jose Institute, the State Normal School, and the new building of the University of the Pacific, Methodist, Female Seminary, Methodist and the Catholic Collegiate Institute, stand as monuments to attest a people's integrity and worth.

San Jose has numerous church edifices—ample public and private schools, hotels, and newspapers. The *Mercury*, weekly; *Independent*, daily and weekly; *Patriot*, daily; and *Argus*, weekly; are published here. The city is connected by railroad with Gilroy, 30 miles south, and San Francisco by two lines—the one we came on, and the other, via the peninsula direct, through the thickly settled and well cultivated San Mateo country; distance 50 miles in a west of north direction; by stage, 10 miles to CONGRESS SPRINGS. These springs are resorted to by those suffering with pulmonary complaints. Stages also run to NEW ALMADEN, 15 miles distant, noted for its medicinal springs, chief among which, and the most valued for its medicinal qualities, is the New Almaden Vichy Water.

Such a demand has been made for this water, that it is now put up in bottles, and meets with an extensive sale throughout the State, and wherever it is known it is very generally recommended by the medical faculty. Near this place are the famous

NEW ALMADEN QUICKSILVER MINES.

These mines are very extensive, and should be visited by the curious. They were discovered by an officer

in the Mexican service during the year 1845, who, seeing the Indians with their faces painted with vermilion, bribed one of them, who told him where it was to be found. The following year, several English and Mexicans formed a company for working the mines, large sums of money were expended, and many difficulties had to be overcome, but finally, by the introduction of important improvements, the mines have proved to be very valuable. The different mines furnish employment for, and support from 1,000 to 1,500 persons. Nearly all the miners are Mexicans.

It is supposed that these mines were known and worked by the native Indians of California, long before the country was known by white men. They worked them to procure the vermilion paint which the ore contained, for the purpose of painting and adorning their villainous persons, and to "swop" with the neighboring tribes.

At San Jose, we step into the horse-cars on the beautiful ALAMEDA AVENUE, which is bordered on each side with two rows of poplar and willow trees, planted by the early Jesuit missionaries, nearly 80 years ago.

Behind these trees are elegant cottages, beautiful orchards, nurseries, and gardens, containing almost every variety of vegetables, fruits, and flowers.

Passing on through this shady bower three miles, we arrive at

SANTA CLARA.—situated near the centre of Santa Clara valley. This valley is one of the loveliest in the world, possessing a soil of surpassing richness. It is celebrated for the salubrity of its climate, and the excellence and variety of its fruits; is thickly settled, and as a wheat-growing valley it has no superior. In point of improvements, good farm-houses, orchards, vineyards, etc., it has few, if any, equals.

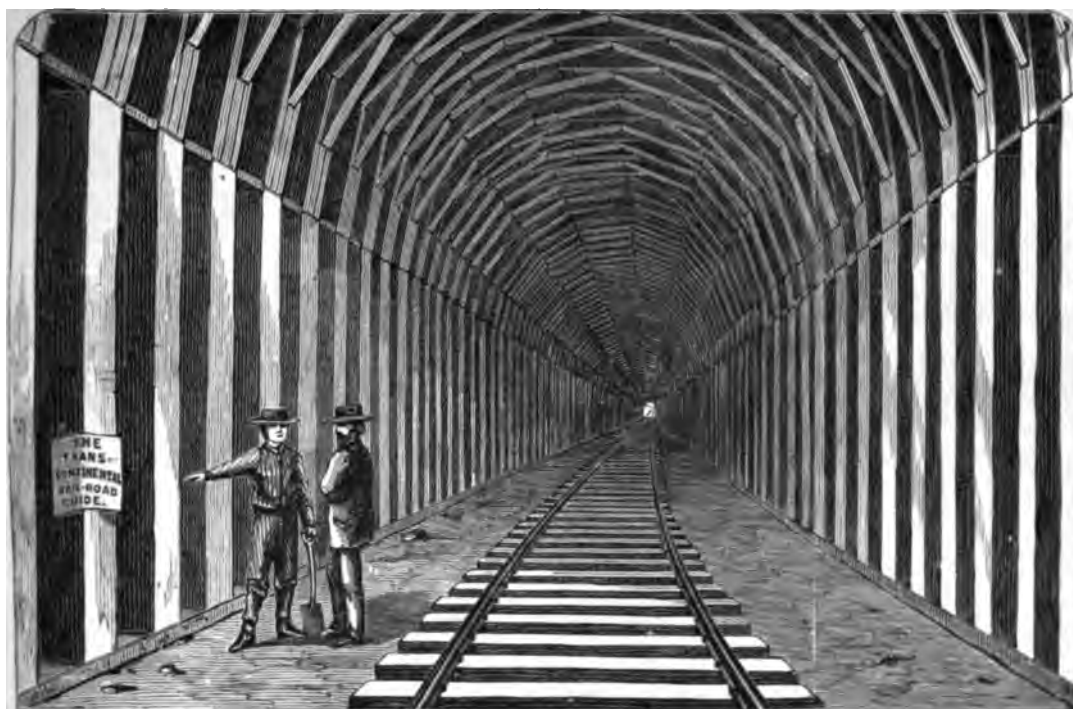
Santa Clara is a thrifty town, of about 3,500 inhabitants. It was originally founded by the Jesuits in 1774. The churches and schools are ample—the latter we have alluded to in connection with San Jose. The *Index*, and the *News*, both weekly newspapers, are published here. Santa Clara is on the railroad between San Francisco and Gilroy—47 miles from the former, and 33 from the latter.

SANTA CRUZ.—The *Newport* of California, is reached from Santa Clara, by stage which crosses the coast range 30 miles distant to the southward. Santa Cruz is the county seat of Santa Cruz county, situated on an arm of Monterey Bay. Population, 2,561; connected by steamer with San Francisco, 77 miles; Monterey, 23 miles; San Luis Obispo, 132 miles; by stage to Pescadero, 35 miles; and other adjoining towns. It is a noted summer resort for sea bathers, who find good accommodations in the shape of hotels, bathing houses, etc. Schools and churches are flourishing. Two newspapers, the Santa Cruz *Sentinel* and *Times*, both weeklies, are published here.

Returning to Niles, we continue our journey towards "Frisco."

DECOTA.—Is three miles from Niles, through beautiful fields on our left and high bluffs on the right. This is a new town, and promises at this time to be one of unusual importance as a suburban residence for the merchant princes of San Francisco.

The lots are very large, with wide avenues, which are to be ornamented with rows of evergreen trees—rumor says, to the extent of from 40,000 to 50,000—and watered from living springs, which flow abundance of water, a few miles to the east in the mountains. To the left the valley stretches away ten miles to San Francisco Bay, dotted here and there with comfortable farm houses, and on all sides extensive and well cultivated fields.



TUNNEL—LIVERMORE PASS. (See page 145.)

On a clear day, the city of San Francisco—26 miles distant—can be distinctly seen a little to the left, ahead of the train, across the bay.

Rolling along down this beautiful valley, we can see on our right, nestling in beside the mountains, the town of **HAYWARDS**—the terminus of the Alameda Railroad. It is 20 miles from San Francisco.

HAYWARDS STATION—Is 6 miles from Decota.

LORENZO—Three miles further, and

SAN LEANDRO—The county seat of Alameda county, 3 miles from Lorenzo. Population about 500. This town is situated on San Leandro Creek, has one weekly newspaper—the *Gazette*—and is connected by San Francisco and Alameda Railroad with Haywood, 11 miles; Alameda, 6 miles.

Alameda county is noted for its peculiarly rich and fertile soil, which seems especially adapted to the cultivation of all kinds of vegetables, the size and weight of which are *truly marvelous*. Carrots grow 3 feet long, and weigh 35 lbs.; cabbages, 75 lbs.; onions, 5 lbs.; water-melons, 85 lbs.; pumpkins—well, no scales can weigh them—pears, 3½ lbs.; cherries, 3 inches in circumference; strawberries, 2 ounces; and beets—not *Hocheluna*—200 lbs. These beets beat in weight those raised in any other country—so far as heard from—and, one of our aged and revered philosophers once said “they beat the devil.”—Possibly, we are not sufficiently educated to make any *positive* statement of the kind that could be taken as *reliable*.

All kinds of grain yields are enormous. In Livermore Valley are some of the finest fields of grain in the State; the yield from a single acre often being 80 bushels. In this county are fine quarries of granite and limestone, suitable for building purposes. Most of the brown stone used in San Francisco is obtained here.

Passing on to the westward, the traveler will note a **RACE TRACK** on the left, where some of the best blooded stock in the State can often be seen exercising.

MELROSE—Is four miles west of San Leandro. Here the train comes to a full stop—to guard against accidents—then crosses the track of the Alameda Railway.

ALAMEDA, Alameda county; is four miles to the left of this station. Population 1,557. It is situated on the eastern shore of San Francisco Bay, 6 miles from Alameda Point; 12 miles from San Francisco, with which it is connected by ferry-boats, and by the San Francisco and Alameda Railroad; with the Central at Melrose and Haywoods, 10 miles distant. It has good schools and churches and elegant private residences.

The town abounds in beautiful groves of oaks. The Encinal and other fine parks have been laid out and improved. It is a favorite resort of pic-nic parties from San Francisco. The *Encinal* and *Home Journal*—weekly newspapers are published here.

BROOKLYN—Formerly San Antonio, is two miles from Melrose. It is on the eastern shore of San Francisco Bay, separated from the city of Oakland by an arm of San Antonio Creek, but connected by bridge. Both Brooklyn and Oakland are situated on ground which slopes gradually back from the bay for several miles to the foot-hills, or base of the Contra Costa Mountains, in their rear. Upon this sloping ground are built many elegant “out of town” residences of the merchants of San Francisco, which command a beautiful view of their city, the Bay, the Golden Gate, and the surrounding country. Population of Brooklyn, about 3,000. Cars and steamboats run regularly between the city and San Francisco. Schools and churches are numerous, and one weekly newspaper—the *Independent* is published here. A short distance to the north-east of

the city, in a cañon of the mountains, are situated the "PIEDMONT WHITE SULPHUR SPRINGS." These springs are strongly impregnated with sulphur, and it is claimed that they possess medicinal qualities. But *why* Californians should be *sick*, or drink sulphur water, when they have such *good wine*, and *so much of it*, we are unable to understand.

The only cotton mill on the Pacific coast is located at this place—the "Oakland Cotton Mills." Their principal business, at present, is the manufacture of burlaps for bags and wool-packs, from "jute" imported from the West Indies. When their works are completed, they will employ 250 operatives.

OAKLAND—Its suburbs commence just across the bridge spoken of, but Broadway Station is two miles from Brooklyn, in about the centre of the city.

What Brooklyn, New York, is to New York city, so is Oakland to the city of San Francisco. The name of the city is significant of its surroundings, as it is situated in an extensive grove of evergreen oaks, with orchards, parks, gardens and vineyards on ever side. Nestling amidst this forest of perpetual green, can be seen, peeping out here and there, the magnificent villa of the nabob, the substantial residence of the wealthy merchant, and the neat and tasteful cottage of the "well to do" mechanic, who have been attracted here by its grand scenery, mild climate, and quiet surroundings—being free from dust, noise, or the bustle of a large city. Oakland is lighted with gas; has broad, well-paved streets; is abundantly supplied with water from a creek five miles distant; supports several horse railroads and two daily newspapers—the *Transcript* and *News*. Churches are numerous. Most of the secret orders are well represented. Public and private schools are ample. The higher educational institutions comprise the University of California, the State University School, the Female College of the Pacific, the Oakland Military School, the Oakland Female Seminary, and the Convent of "Our Lady of the Sacred Heart." The University of California is at Berkley, four miles distant. It is constructed throughout of brick and iron; they say, earthquake and fire proof.

Near the university, towards the bay, is located the State Asylum of the Deaf, Dumb and Blind. It is a massive stone building, three stories high, 300 feet above the bay, and commanding a very extensive view. Oakland is the fourth city in population in the State, being about 12,000, and rapidly increasing.

OAKLAND POINT—Is a little over one mile from Oakland—south. To the left of the track at this place are the usual round-houses, machine and repair shops of a division. Until the building of a pier at this place, the only harbor of Oakland was to the eastward, at the mouth of San Antonio creek, the water to the westward being quite shallow for a long distance from shore.

"Old Foggy" would say, "As this Point is the *extreme* western foot of available land to build a railroad upon, here must be the terminus; we cannot go any farther." But "Young America," not content with spanning a continent with iron rails, says, "You are mistaken, old top, we are going to China—all aboard!" And before that aged "Foggy" could realize the situation, a finger flashes the lightning to the timber lands of the Sierra Nevada mountains—250 miles away—and down come long trains of cars, 40 miles an hour, loaded with timber, lumber and piles, and the swarms of laborers are soon laying the track "over the waters" towards the setting sun.

Passing on down the pier, "which I wish to remark, and my language is plain," that for piles that are large,

and timbers that are strong, the pier that *we're on* is peculiar.

To our right, looking over the broad expanse of water, the mountains of Marin county loom up in the distance, the highest point being Mount Tamalpais, 2,604 feet high.

Half a mile down the pier we come to where the through freight cars come in on the left. This track branched off at Brooklyn from the main track, which passes through the city of Oakland, and is built on piles over the shoal water skirting the city front to this place, where the tracks again unite.

Down the pier rolls the long train, directly out into the bay, 2½ miles to the ferry-boat, which conveys passengers over the waters three miles to the city of San Francisco. (See bird's eye view opposite.)

THE PIER—It is built of the best materials, and in the most substantial manner, with double track and carriage-way extending the whole length. There are three slips. The one to the north is 600 feet long, and will accommodate the largest ships, the water being 26½ feet in depth at low tide and 32 at high tide. On each side of the slip are erected large warehouses, one of them 600x52 feet, the other 500x52 feet, with tracks running through, for the purpose of loading and discharging.

The next slip south was built to accommodate the "THOROUGHFARE." This steamer was designed expressly for taking freight cars and cattle across the bay. Her capacity is 16 loaded cars and pens for 16 car-loads of cattle—288 head—making 32 car-loads in all. She once made the trip across the bay—loaded—running a distance of three and a half miles in 22 minutes. The boat is 260 feet on deck, 38 feet beam, with flat bottom. The engines are 200 horse power; cylinders, 22x84, and were constructed at the company's shops in Sacramento.

The south slip is the passenger slip, where lands the regular ferry-boat between Oakland and San Francisco. On each side of this slip is a passenger-house—one 30x70 feet, the other 40x50 feet. In these buildings are located the division offices of the railroad company. They afford ample accommodations for passengers, and the enormous travel, the advance guard of which has only *just commenced* to arrive. The company once designed to extend this pier to Goat Island, directly ahead, but permission was not granted by the general government, who own the island. Should it ever be done, we may look forward to the early filling in of the portion of the bay between Oakland and the Island, upon which will be located the future great commercial city of the Pacific coast.

The first ship that loaded at this pier was the "Jennie Eastman," of Bath, England. She commenced loading August 4th, 1870, for Liverpool, with wheat, brought—some from San Joaques Valley, but the greater portion from the end of the California and Oregon Railroad, 230 miles north of San Francisco.

It is hardly understood yet by the people of the world, that the China, Japan, Sandwich Island, and Australian steamships can land at this pier, load and unload from and into the cars of the Pacific Railroad; and those cars can be taken through, to and from the Atlantic and Pacific Ocean, without change; that goods in bond can (as teas and silks are now) be so transported in one fourth the time heretofore occupied. When these facts are fully understood—and the necessary arrangements made—the rush of overland and freight traffic will commence, the extent of which, within the next 50 years, few, if any, now living are able to realize.

Already, a large number of ships, direct from Liver-



pool, loaded with iron and other merchandise, have been discharged at this pier. From the landing place of the "Thoroughfare," in San Francisco, a rail track leads to the dock of the Pacific mail, and other ocean steamships, and goods are now transferred in that way in bond, but the time is not far distant, when all foreign vessels, with goods for "across the continent," will land at this pier.

The Railroad Company have taken ample precautions against fire on this pier, by providing the two engines that are employed doing the yard work, with force-pump attachments, steam from the locomotive boilers, and supplied with reels of hose and suction-pipe so arranged that water can be used from their tanks or the bay.

GOAT ISLAND, or "Yerba Buena," is about one mile distant from the end of the pier—directly ahead. It is nearly round, 340 feet altitude, containing 350 acres. Belongs to the government, but is of little value.

BEHOLD!—As we stand at the end of this pier—almost in the middle of San Francisco Bay—and think back only twenty-five years, we are lost in wonder and astonishment. Here are already four cities within a few miles of where we stand; the smallest has near 2,000, while the larger teems with nearly 175,000 inhabitants, representatives from every land and clime on the face of the earth. In 1847, 500 white settlers could not be found in as many hundred miles, and not one ship a year visited this bay. Now there are eight large mail steamships in the China trade, six in the Pacific mail service, via Panama, 32 more regularly engaged on the coast from Sitka, on the north; to South America, Honolulu, Australia, New Zealand, on the south; besides hundreds of ships and sailing vessels of every description—all busy—all life. Here, too, at the end of this pier, is the extreme western end of the grand system of American railways which has sprung into existence within the same twenty-five years. How fast we live! The gentle breeze of to-day was the *whirlwind* of fifty years ago. *Will we—can we—continue at the same ratio?* But why speculate? It is our business to write what is taking place to-day; so we will now step on board the ferry-boat and take a look at

SAN FRANCISCO.—The city presents a broken appearance, owing to a portion being built on the hills, which attain quite a respectable altitude. From the tops of these hills a very fair view of the city can be obtained.

A large portion of the city is built on land made by filling out into the bay. Where the large warehouses now stand, ships of the heaviest tonnage could ride in safety but a few years ago. To protect this made land, and also to prevent the anchorage from being destroyed, a sea-wall has been built in front of the city.

The principal wharves are on the eastern side of the city, fronting this made land. North Point has some good wharves, but from the business portion the steep grade of the city is a great objection.

On landing at the ferry-slip in the city, the first thing required is a good hotel. Now, if there is any one thing that San Francisco is noted for more than another it is good hotels. (Palace Hotel, see p. 157.)

The grand Hotel, Cosmopolitan, Lick, and Occidental, are all *first-class*, both in fare and price—charges from three to five dollars per day. The Brooklyn, Russ, American Exchange, International, Orleans, and others, are all *good* hotels, at charges from \$2 to \$2.50 per day. Then there are a great many cheaper houses, with rooms from 25 to 75 cents per night, with restaurant meals to order.

San Francisco is situated on the north end of the southern peninsula, which, with the northern one, separates the waters of San Francisco Bay from those of the Pacific Ocean. Between these peninsulas is the GOLDEN GATE, a narrow strait, one mile wide, with a depth of 30 feet, connecting the bay with the ocean.

The *first house* built in San Francisco was in 1835. The place was then called "Yuba Buena"—changed to San Francisco in 1847, *before the discovery of gold*. The city contains about 175,000 inhabitants; is well built and regularly laid out north of Market street, which divides the city into two sections. South of this the streets have an eastern declination as compared with those running north. The city is situated in latitude, 37 deg. 48 sec. north; longitude, 120 deg. 27 min. west.

The climate is unsurpassed by that of any large seaport town in the United States—uniformity and dryness constituting its chief claim to superiority. There is but little rain during the year—only about half that of the Eastern States. The mean temperature is 54 deg., the variation being but 10 deg. during the year.

San Francisco, in early days, suffered fearfully from fires. The city was almost completely destroyed at six different times during the years of 1849, '50, '51, and 1852. The destruction has been estimated in round numbers to exceed \$26,000,000. The result of these fires has been that nearly all the buildings built since 1852 have been built of brick, stone, or iron—particularly in the business portion. The city has many magnificent private residences, and cosy little *home* cottages, ornamented with evergreens, creeping vines, and beautiful flowers. The yards or grounds are laid out very tastefully, with neat gravelled walks, mounds, statues, ponds, and sparkling fountains, where the "crystal waters flow."

The city is amply supplied with schools, both public and private. There is no institution of the city wherein the people take more interest and pride; none, of the credit and honor of which they are more jealous. Some of the finest buildings of the city were built for school purposes, the Denman and Lincoln school houses being the finest of the number.

There are 46 churches—of all kinds, creeds, and beliefs—including several Chinese "Joss Houses." The Jewish synagogue is the finest among them, situated on Sutter street.

THE NEWSPAPER, and MAGAZINE, are the histories of the present, and the person who does not read them must be ignorant indeed. Californians are a reading people; and he that comes here to find fools brings his pig to a very poor market.

There are in the city 60 newspapers, magazines, and periodicals. There are nine daily papers, the *Alta Californian*, the *Bulletin*, *Morning Call*, *Morning Chronicle*, *Post*, *Examiner*, *Abend Post* (German), *Demokrat* (German), and *Courrier de San Francisco* (French). The *Golden Era* and the *Golden City* are literary weeklies.

The *News Letter*, is a spicy weekly; the *Coast Review*, is the great insurance authority of the Pacific Coast—Monthly. The *Mining and Scientific Press*, and the *Pacific Rural Press*, are first class weekly journals in their specialties. Here, too, is published, the *Journal of Commerce*, weekly; *Alaska Herald*, weekly; the *Overland Monthly*, magazine; and numerous other valuable periodicals.

If among all these publications you can find nothing to suit you—*nothing new*—why, then, we advise you to *surprise* the Bible, by reading it, and you will profit by its teachings.



SEALS AND SEA LIONS AT SEAL ROCKS. (See page 156.)

ITEMS TO REMEMBER.

CALIFORNIA IN MINIATURE.—The finest collections of views, and we might say, almost the *only* complete ones of the Big Trees, Yo-Semite, Geyser Springs, Pacific Railroad, Nevada, Oregon, and the Pacific coast generally, are to be found at Thos. Houseworth & Co.'s, No. 9 Montgomery st., Lick House, and at E. C. Watkins, No. 22 Montgomery st. Many of the illustrations in the *TOURIST* were engraved from views taken by these houses. We have always avoided "puffing," but we believe we are doing our readers a service in this case.

THE MARKETS of San Francisco are one of the features of the city; those who never saw the fruit and vegetables of California should visit the markets. No other country can produce fruit in such profusion and perfection. The grapes, peaches, pears, etc., on exhibition in the city markets, represent the best productions of all parts of the State.

THE CALIFORNIA THEATRE, on Bush st., is the largest and most elegant; devoted to legitimate drama.

THE ALHAMBRA, on the same street; opera bouffe, burlesque, and minstrelsy.

THE METROPOLITAN and the **OPERA HOUSE**, on Washington st.; drama and opera.

CHINESE THEATRES, two in number, with all their "tricks that are vain," perform nightly, but few can understand; yet they are worth *one* visit.

THE PLAZA, **WASHINGTON**, **UNION**, **COLUMBIA**, **LOBOS**, **HAMILTON**, and **ALAMO SQUARES**, and **YERBA BUENA**, **BUENA VISTA**, and **GOLDEN GATE PARKS**, are all small, except the last, which contains 1,100 acres, and very

little improved. The Oakland and Alameda parks are largely patronized by San Franciscans, who reach them by ferry-boat. But what the city is deficient in parks, is made up by the

WOODWARD GARDENS—These gardens were laid out in 1860 by R. B. Woodward, Esq., a gentleman of enterprise and refined taste, to surround, adorn, and beautify his private residence, situated near the centre of the grounds. To this end the continents of both America and Europe were searched to procure every variety of ornamental trees, exotics, indigenous plants, or articles of *rare virtue* and *value*. For us to attempt to describe these beautiful grounds and do justice to the subject, were we able, would take a larger book than the *TOURIST*. They must be seen to be appreciated. You will find in the "Art Gallery" rare paintings and statuary; in the "Zoological" department a great variety of different kinds of wild animals, including the California lion, and a mammoth grizzly bear, weighing 1,600 pounds; also a great variety of California birds.

In these grounds are towering evergreen trees and crystal lakes, oriental arbors and beautiful statuary, delightful nooks and shady retreats, with creeping vines, fragrant flowers, sparkling fountains, sweet music, and, above all, the glorious California sky. Possessed of all these luxuriant surroundings, and with ample income, could any person be surprised that Mr. Woodward should persistently decline to open them to the curious public? But the time came at last. It was when the soldiers and sailors of his country lay bleeding in the hospitals, on the ships, in the camps, and on the battle-fields, with widows, orphans, suffering and death on every side. The sanitary fund

was low. *Money must be had!* Then it was that his noble heart leaped to the rescue. The grounds were thrown open to the public *in aid of the Sanitary Fund*. The receipts were princely; and who can say how many lives were saved, or the sufferings of the last moments of life alleviated, by the aid of the generous proprietor of the Woodward Gardens? These gardens were opened permanently to the public in May, 1866. They occupy 5 acres of ground, 4 of which are bounded by Market, Mission, 13th, and 14th streets, with one acre to the south of 14th st., connected by tunnel under that street from the main garden.

The CITY GARDENS are N. E. corner Folsom and 12th streets.

The CITY HALL is on Kearny street, opposite the Plaza.

MISSION BAY is two miles south of the City Hall.

HORSE CARS run to nearly all parts of the city. Tickets cost 25 cents, with four coupons attached, each coupon good for one fare.

The city, south of Market street, towards Mission bay, is covered by residences, except portions of Second and Third streets, which are occupied by retail shopkeepers. These streets are numbered from 1 to 26.

The IRON FOUNDRIES and MACHINE shops are on Howard and Fremont streets. The heavy WHOLESALe HOUSES are mostly on Front, Battery, and Sanson streets, north from Market.

The main PRINTING OFFICES are on Clay street.

MONTGOMERY STREET is the *Broadway* of San Francisco, though Kearney street disputes the honor.

CALIFORNIA STREET is the *Wall Street* of the city.

The CHEAP LODGING and EATING HOUSES are mostly on Sacramento and Commercial streets.

The POST OFFICE AND CUSTOM HOUSE are on Washington street.

MERCHANTS' EXCHANGE BUILDING is on California street.

The STOCK EXCHANGE is in the Merchants' Exchange Building.

The BRANCH MINT of the United States is located in the new building N. W. corner Mission and 5th streets. About \$5,000,000 are coined at this mint annually, from the gold and silver of the Pacific coast.

WATER for the city use is obtained from Pillarcitos creek, 20 miles south of the city, in San Mateo county, Lake Honda, five miles south, being used as a reservoir. Yet there are many wells, the water being elevated by wind-mills.

The LIBRARIES are numerous. The Mercantile, on Bush street; the Odd Fellows, on Montgomery street; the Mechanics' Institute, on Post street; the What Cheer, at the "What Cheer House;" and the Young Men's Christian Association, are the principal ones, open *free* to tourists upon application.

The MECHANICS' PAVILION fronts on Geary street, and covers one block of ground. The Mechanics' Institute owns the building, and hold their fairs there.

The DRY DOCK, at Hunter's Point, six miles south-east, is 465 feet long, 125 feet wide, and 40 feet deep, cut in solid rock, at a cost of \$1,200,000.

PROTRERO SHIP YARDS are located at Protrero, and are reached by the city cars. All kinds of small craft for the coast service are built at these yards.

CHINA TOWN is situated on Sacramento, above Kearny, Dupont, between Sacramento and Washington streets, and Jackson street, between Dupont and Kearny. These streets are occupied exclusively by Celestial shopkeepers, "Heathen Chinese."

THE BARBARY COAST, a noted resort for thieves, cut-throats, and the vilest of the vile, is situated on Pacific

street, between Kearny and Dupont streets. We give the precise locality, so that our readers may *keep away*. Give it a "*wide berth*," as you value your life.

ANGEL ISLAND, 3 miles north of the city, is $1\frac{1}{2}$ miles long, $\frac{1}{4}$ of a mile wide. Altitude, 771 feet. On this island are quarries of brown and blue stone, which are extensively used in the city for building purposes.

GOAT ISLAND, or "Yerba Buena," $2\frac{1}{4}$ miles east, nearly round, containing 350 acres. Altitude, 340 feet.

ALCATRAZ ISLAND is $1\frac{1}{2}$ miles north, strongly fortified. The summit is 140 feet above tide, surrounded by a belt of batteries, which command the entrance to the harbor—a "key to the position." These islands are all owned by the government.

SECRET ORDERS are numerous in San Francisco—too numerous to note here.

POINT LOBOSE is 6 miles west.

FORT POINT is north of west from the City Hall, 5 miles at the south end of Golden Gate. It is the most heavily fortified on the coast—on the plan of Fort Sumter, in South Carolina.

TELEGRAPH HILL, to the north, is 394 feet high.

RUSSIAN HILL is 360 feet high.

CLAY ST. HILL is 376 feet high.

The TWIN PEAKS, 4 miles south-west, rise 1,200 feet. The visitor can obtain from the summit of these peaks a fine view of the whole country for many miles around—the Golden Gate and the Great Pacific Ocean.

FERRY-BOATS run regularly between San Francisco and Oakland, Alameda, San Quentin, &c., &c.

RAIL CARS via San Jose to Gilroy, 80 miles.

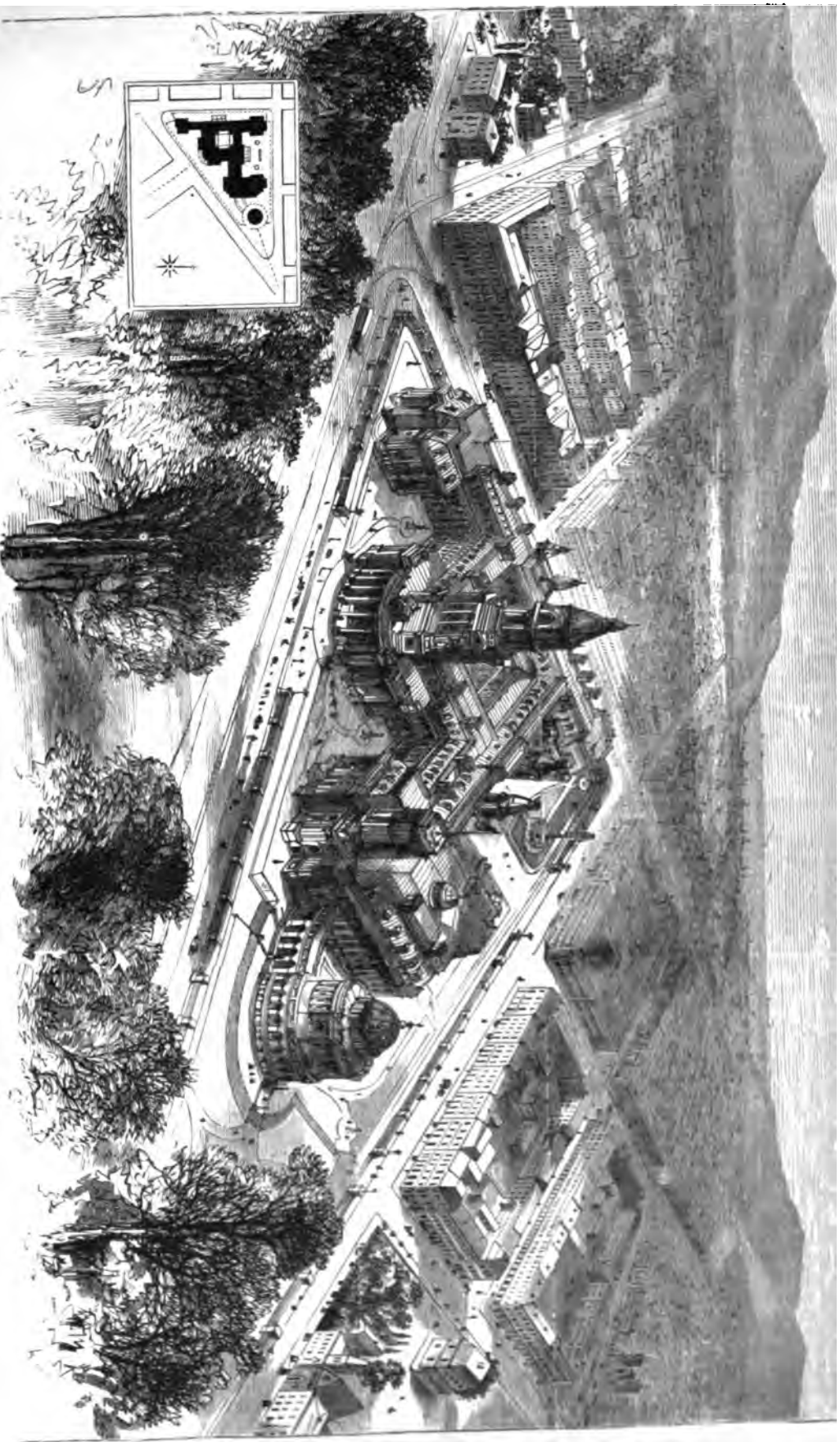
STEAMERS leave regularly for Vallejo, 28 miles; Benicia, 30; Petaluma, 48; Santa Cruz, 76; Monterey, 100; Stockton, 110; Sacramento, 125; San Luis Obispo, 209; Eureka, 233; Crescent City, 280; Santa Barbary, 280; San Pedro, 364; San Diego, 456; Portland, 642; Victoria, V. I., 753; Mazatlan, 1,480; Guaymas, 1,710; La Paz, 1,802; Acapulco, 1,808; Sitka, 1,951; Honolulu, 2,090; Panama, 3,230; Yokohama, 4,764; Hiogo, 5,104; Auckland, 5,907; Shanghai, 5,964; Hong Kong, 6,384; Sidney, Australia, 7,183; Melbourne, 7,700 miles.

THE SOUTHERN PACIFIC RAILROAD, south from San Francisco, is now completed to SOLEDAD, 143 miles, and trains running on schedule time. This road is under the management of the Central Pacific Company.

The general offices of the Central Pacific Railroad are located on the south side of the city, corner Fourth and Townsend streets.

FINALLY—Here we are on the golden shores of California. We have come with the traveler from the far east to the far west; from the Atlantic to the Pacific—from where the sun *rises out* of the waters to where it *sets* in the waters, covering an extent of country hundreds of miles in width, and recording a telegram of the most important places and objects of interest—*brief, necessarily, but to the point*—and we feel certain a pardon would be granted by the reader if we now said good-bye. But how can we? The theme is *so exhaustless!* So let us procure a carriage, and take one "swing around the circle" before we close.

THE SEAL ROCKS—Six miles west—we will visit (Horse-cars run out $2\frac{1}{4}$ miles, connecting with a regular omnibus line the balance of the way.) Early in the morning is the best time to start, as the coast breeze commences about eleven o'clock, after which it will be so pleasant. We will be fashionable—get up—and drive out to the "Cliff House" for breakfast. Within the first $2\frac{1}{4}$ miles we pass a number of



NEW CITY HALL, SAN FRANCISCO, CALIFORNIA. (See description page 131.)

eteries; some of them contain beautiful monuments, and are very tastefully ornamented. The principal ones are the Lone Mountain, Laurel Hill, and Odd Fellows. In the Lone Mountain cemetery, on our right, under that tall and most conspicuous monument, which can be seen for many miles away, rests the remains of the lamented Senator Broderick, who fell a victim of the "Code Duello" through jealousy and political strife. Near by are the monuments of Starr King, Baker, and many others, whose lives and services have done honor to the State. On the summit of Lone Mountain, to the left, stands a large cross, which is a noted land-mark, and can be seen from far out to sea.

In a little valley, close to the road, we pass, on the right, surrounded by a high fence, one of the most noted RACE-COURSES in the State.

From the city the road leads over a succession of sand-hills; from the summit of some of these we catch an occasional glimpse of the *big drink* in the distance, the view seeming to *improve* as we gain the summit of each, until the last one is reached, when there, almost at our feet, stretching away farther than the eye can penetrate, lies the great Pacific Ocean, in all its mysterious majesty. We will be sure to see numerous ships, small craft and steamers, the latter marked by a long black trail of smoke. They are a portion of the world's great merchant marine, which navigate these mighty waters, going and coming, night and day, laden with the treasure, and the productions, and representatives of every nation, land and clime.

Close on our right is the Golden Gate, with the bold dark bluffs of the northern peninsula beyond. The "Gate" is open, an invitation to all nations to enter—but beside them are the "Boys in Blue," with ample fortifications, surmounted by the "Bull Dogs" of "Uncle Sam," standing ready to close them at the first signal of danger.

Our descent from the summit of the last hill seems rapid, as we are almost lost in admiration of the magnificence spread out before us, until we arrive at the

CLIFF HOUSE.—The stranger on the road, and at the Cliff House, would think it was a *gala day*—something unusual. Such grand "turn-outs," and so many. The fact is, this "Drive" is to the San Franciscan what the "Central Park" is to the New Yorker—the "style" of the former is *not* to be outdone by the latter. The drive out is always a cool one, and the first thing usually done on arriving is to take a drink—water, and then, order breakfast—and such nice little private breakfast rooms! Oh, these Californians know *how* to tickle your fancy.

Hark! "*Yoi-Hoi, Yoi-Hoi, Yoi.*" What the dence is that? *Those hearing us smile.* We do not ask, but we conclude it must be a big herd of healthy donkeys passing, when two gentlemen enter from the rear, and one of them says, "Colonel (*there is no lower grade in California*), I will bet you 50 shares in the Gould & Curry or Red Jacket, that General Grant, that big seal on the top of the rock, will weigh 3,000 pounds." We did not stop to hear more, but rushed out the back door on to a long veranda running the whole length of the house, which is situated on a projecting cliff, 200 feet above, and almost overhanging the waters, when "*Yoi-Hoi, Yoi-Hoi, Yoi*"—and there were *our* donkeys, 500 yards away, laying on, scrambling up, plunging off, fighting, and sporting around three little rocky islands. The largest of these islands is called "Santo Domingo." It is quite steep; few can climb it. A sleek, dark-looking seal, which they call Ben. Butler, has at times attempted it; but away up on the very top—basking in the sun, with an occasional "*Yoi-hoi, boyi*"—lies General Grant, the *biggest whopper* of them all. We

knew him at the first sight. He had something in his mouth, and looked *wise*. Often when the din of his fellow seals below become fearful, who are ever quarreling in their efforts to climb up, his "*Yoi-hoi, Boyi*" can be heard above them all—which, in seal language, means, "*Let us have peace.*" Sea fowls in large numbers are hovering on and around these rocks. They too are very chattering, but we have no time to learn their language, as here comes a steamer bound for China. (See illustration.) It steams in close to the islands, and we think we can discern some of our fellow travelers "across the continent" among the passengers. The are on a trip "around the world," and are waving their compliments to the General on the top of the rock. Breakfast is called; being fashionable, we take another—water, and, while eating a hearty meal, learn that these seals are protected by the laws of the State against capture, and something of their habits; then pay our bill, and the ostler *his detainer*, take our seat, and whirl around over a broad winding road, which is blasted out of the rocky bluff on our left to the sandy beach below.

Right here we meet Old Pacific Ocean himself—face to face—near enough to "*shake.*" He is a good fellow when he is himself—*pacific*—but he drinks a great deal, perhaps too much; but certain it is he gets very noisy at times—very turbulent. In driving along the beach, we come to one of the evidences of his fearful wrath. Do you see that ship laying on her side?

One night, after a big carousal, when it was said Old Pacific had been drinking a great deal—more than usual—and was in a *towering passion*, he drove this ship *up almost high and dry* on the beach, where you see her. Not content with that, chased the escaping occupants far into the sand hills, throwing spars, masts, and rigging after them.

We don't want any of that kind of *pacific* in our sleep.

We will now keep our eye on Old Pacific, and drive along down the beach, by several fine hotels, and then turn into the sand-hills to the left, passing over a high point, where some fine views can be had of the surrounding country, and around to the old Mission Dolores. Here is food for the curious. But we cannot afford to stop here long, as Boreas is getting waked up, and is sliding the sand over the bluffs after us—rather disagreeable. This Mission was founded in 1775, by Spanish missionaries, who, for over 60 years, wielded a mighty influence among the native Californians (Indians). In its most prosperous days, the Mission possessed 76,000 head of stock cattle, 2,920 horses, 820 mules, 79,000 sheep, 2,000 hogs, 456 yoke of working oxen, 180,000 bushels of wheat and barley, besides \$75,000 worth of merchandize and hard cash.

The greater portion of all this wealth was confiscated by the Mexican Government, so that when California became a portion of the United States little remained, except these old adobe walls and grounds, together with about 600 volumes of old Spanish books, manuscripts, and records.

Returning to the city, we pass many objects of interest well worthy of notice, but we cannot attend to them now. Just come and see how it is yourself.

NOTES AT LARGE.—CALIFORNIA was first discovered in 1542, by a Portuguese, Juan R. Cabrillo, while in the Spanish service. It was held by the Spanish, then by the Mexican governments, until 1848, when, by treaty, it became a portion of the United States. It was admitted as a State in 1850. It covers an area of 160,000 square miles, divided about equally into mining, agricultural, timber, and grazing lands. All kinds of grain, fruit, and vegetables, grow in profusion. The



SEAL ROCKS—From the Cliff House, see page 152.

grape culture has occupied the attention of many of her people, who find that they can produce wine surpassed by none in this country, and few in the old. Large quantities are used throughout the United States, with a yearly increased shipment to European markets. Her manufactures are of a high order, and attract favorable notice at home and abroad. The spirit of enterprise manifested by her citizens has deserved and won success. Under the liberal, far-seeing policy of the younger class of capitalists and merchants, who appeared about the time of the inauguration of the great railroad, a new order of things arose. Men began to regard this land as their future home, who, before this era, cared to stay here no longer than while they obtained a fortune, which they expected to get within a few months at farthest.

From this time, money expanded, trade, agriculture, mining and manufactures began to assume their proper stations. The old, narrow, ruinous no-policy, which marked the era of the old capitalist, passed away, and a brighter era opened to the people of the Pacific slope.

The BANK OF CALIFORNIA is one of those *live institutions*, with a capital of \$5,000,000 gold. We gave its history in a former volume. We can only add—the managers know their business, and do nothing by halves. The bank has branches all over the State, and in Oregon and Nevada.

The STATE AGRICULTURAL SOCIETY hold annual fairs in September. They are largely attended—visitors and exhibitors coming from all parts of the State, Nevada, and Oregon.

The MECHANICS' INSTITUTE hold annual fairs.

The SIERRA NEVADA MOUNTAINS are about 600 miles long, and from 60 to 100 miles in width, their general direction north-west and south-east. The height of the principal peaks are—Mt. Whitney, 15,068 feet ;

Williams, 14,500 ; Shasta, 14,444 ; Tyndall, 14,386 ; Rawenah, 14,000 ; Gardner, 14,000 ; King, 14,000 ; Brewer, 13,886 ; Dana, 13,227 ; Lyell, 13,217 ; Castle Peak, 13,000 ; Cathedral Peak, 11,000 ; Lassen's, 10,577 feet.

The COAST RANGE is the range of mountains nearest the Pacific Ocean, extending the whole length of the State, broken at intervals with numerous small rivers and narrow fertile valleys. The principal peaks are—Mt. Ballery, 6,357 feet high ; Pierce, 6,000 ; Hamilton, 4,450 ; Diablo, 3,876 ; Banck, 3,790 ; Chonal, 3,530 ; St. Helena, 3,700 ; Tamalpais, 2,604 feet. Mount St. Bernardino, away to the southward, in the range of that name, is 8,370 feet in height.

The RAINY SEASON is between the first of November and the first of May, the rain falling principally in the night, while the days are mostly clear and pleasant. At Christmas the whole country is covered with green grass, in January with a carpet of flowers, and in April and May with ripening fields of grain. During 15 years of observation the average has been 220 clear, 85 cloudy, and 60 rainy days, each year. The nights are cool the year round, requiring a coverlid during the hottest and driest season.

WOOD HAULING IN NEVADA—On page 106 will be found a beautiful engraving, representing a ten-mule team loaded with wood. The three wagons are coupled together like a train of cars—called "trail wagons"—on which are loaded twenty-four cords of wood.

At the point represented in the picture, the team is about on the dividing line between Gold Hill, down the Cañon to the rear of the wagons, one-fourth mile—and Virginia, directly ahead about the same distance, around the point of the mountain.

This plan of coupling wagons is quite common on the Pacific Coast, for all kinds of heavy hauling. The picture was engraved by Mr. Bross, of New York, from a photograph taken by Sutterley, of Virginia City.

FARALLONES ISLANDS are seven in number, 30 miles west of Golden Gate, in the Pacific Ocean, totally barren of everything but seals, sea-lions, and water-fowls. These are *very numerous*. Many of the seals will weigh from 2,000 to 4,000 lbs. and are quite tame. They are protected from capture by State laws; but the poor birds—and they are legion—which inhabit these islands, laying millions of eggs every year, are robbed with impunity. Most of the eggs in the markets of San Francisco are brought from these islands. The islands are all rocks; the highest peak is surmounted with a light-house of the first order, 340 feet above the water.

SAN QUENTIN is a noted place of summer and winter resort. The resident tourists number from 600 to 1,000, their term of residence varying from six months to a life-time. The quarters for their accommodation are furnished by the State, free of charge. The Lieutenant-Governor exercises personal supervision over the guests, assisted by many subordinates and a company of soldiers. The guests come here, not of their own will, but through their folly, and we believe they would quit the place, *if they could*. By law it is known as the State Prison. Route—by ferry—12 miles north.

SAN RAFAEL—The County seat of Marin County. Population, about 800. It was settled in 1817 by the Jesuit missionaries. It is situated in a beautiful little valley, and of late has become a thriving suburban town. The *Journal* and *News*—both weekly papers—are published here. Connected with San Quentin by railroad—distance, 3 miles east.

MT. TAMALPAIS.—Route, by ferry to San Quentin, 12 miles north of San Francisco, 3 miles by railroad to San Rafael, saddle horses for the remainder of the journey, 12 miles to the summit, which is 2,604 feet high.

NAPA CITY is the county seat of Napa county, situated in Napa Valley, on Napa River and the Napa Valley Railroad, with the NAPA SODA SPRINGS, six miles to the east. Yet the Napa seldom *nap*, but often "*ntp*." It is a lively town, of about 3,500 inhabitants, at the head of tide-water navigation, sporting two weekly newspapers—the *Register* and *Reporter*—and in the midst of a country noted for its mild and genial climate, the great fertility of its soil, and its many well-cultivated vineyards—producing annually over 200,000 gallons of wine and brandy.

The water from these springs has become quite celebrated; a large amount of it is bottled annually, and shipped to all parts of the State. Route—steamer to Vallejo, 28 miles, and 16 more by railroad.

SONOMA.—This town is a quiet, old place, founded in 1820, and contains about 600 inhabitants. Many of the old original adobe buildings are still standing in a good state of preservation. Sonoma has the honor of being the place where the old "Bear Flag" was first raised. It is connected by stage with Napa—distance 12 miles.

CALISTOGA is the most popular of all the summer resorts near the bay. The springs to be found here possess great medicinal qualities, and have already won a high local reputation. In the town, every accommodation in the way of hotels, etc., is afforded to the numerous visitors who annually gather here to bathe in and drink the invigorating water, enjoy the unsurpassed hunting and fishing in the vicinity, and above all, to breathe the pure air of the charming little valley, while viewing the beautiful mountain scenery. The Petrified forest is near the town, and well worth a visit by the curious. Route—steamer to Vallejo, 28 miles; Napa Valley Railroad, 43 miles more.

The **GEYSERS** are 25 miles distant from Calistoga by stage. These springs, with their taste, smell and noise, are *fearful*! *Wonderful*! We have been told that the productions of California "beats Sanko;" but we feel

certain he has not left the country, and is *not far* from this place. Here are over 200 mineral springs, the waters of which are hot, cold, sweet, sour, iron, soda, alum, sulphur—well, you *should* be suited with the varieties of sulphur! There is white sulphur and black sulphur, yellow sulphur and red sulphur, and and how many more, deponent saith not. But *if* there are any other kinds wanted, and they are not to be seen, call for them, *they are there*, together with all kinds of contending elements, *roaring, thundering, hissing, bubbling, spurting and steaming*, with a smell that would disgust any Chinese dinner-party. We are unable to describe all these wonderful things. (See page 139.)

PETALUMA is the largest town in Sonoma county. It is situated on Petaluma Creek, at the head of navigation. Population 4,500. It is the shipping point for the grain raised in the adjoining country. The *Crescent*, daily and weekly, and the *Journal and Argus*, weekly, are the newspapers published here.

The route is via steamer from San Francisco, 48 miles.

SANTA ROSA, the county seat of Sonoma county, is situated in the midst of a very rich agricultural region. Population, 1,500. It is 16 miles from Petaluma, and 16 from Healdsburg, with both of which it will soon be connected by rail, as above alluded to. The *Democrat*, a weekly paper, is published here. The leading industry of the country is wheat, the yield for 1869 was 2,120,213 bushels—the second largest in the State. The same year, the number of grape vines cultivated was 4,112,279, producing over 350,000 gallons of wine and brandy—the largest in the State, except Los Angeles county.

HEALDSBURGH, a beautiful little town of about 1,500 inhabitants, is situated on the Russian River, 16 miles north-west from Santa Rosa, and 20 miles from the ocean. Russian Valley, in which the town is located, is noted for its great yield of wheat, and the extraordinary quickness of its soil, producing potatoes, peas, and many other vegetables within 65 days from the time the seed is planted. The *Russian River Flag*, a *live* weekly paper, is published here. The tourist will find excellent hunting and fishing near by, with ample hotel accommodations.

EUREKA is a port of entry, situated in Humboldt county, on the east side of Humboldt bay, and is the principal shipping point for the lumber and timber from the extensive forests of red wood, which this county is noted for. A large amount of red wood lumber is shipped annually from Eureka to foreign as well as home ports. It has two weekly papers. The Humboldt land office is also located here. Population, 2,500. Route: steamer from San Francisco, 233 miles north; also, by stage from Petaluma.

LOS ANGELES is the county seat of Los Angeles county, in Southern California. It was settled in 1781. Present population, 7,000. It has two daily and three weekly newspapers. It is the head-quarters for the United States southern district of the Pacific, and contains the principal military barracks and store-houses.

Los Angeles county produces larger quantities of corn, castor beans, lemon and orange trees, horses, cattle, and sheep, and makes more gallons of wine and brandy, than any other county in the State.

It is situated on the Los Angeles river, 23 miles from the port of San Pedro; but the principal shipping point is at Wilmington, a few miles above San Pedro, at the head of the bay, with which it is connected by railroad, 18 miles distant. Regular steamers touch at San Pedro for San Francisco, 364 miles; San Diego, 82 miles by water, 131 miles by stage. Los Angeles is also

connected by stage with all the interior towns, and with Gilroy. 366 miles; from thence by rail to San Francisco, 60 miles.

SAN DIEGO was first settled by the Jesuit missionaries in 1769, and is the oldest town in the State. It is a port of entry, and the country seat of San Diego county. Population at present about 6,000, but rapidly increasing. It is situated on San Diego bay, which, for its size, is the most sheltered, secure, and finest harbor in the world. The bay is 12 miles long and 2 miles wide, with never less than 30 feet of water at low tide. And a good sandy bottom. By act of Congress, it is the western terminus of Texas & Pacific Railroad, which is now being constructed to the eastward from this place, to meet the line building from Texas westward. For the past year San Diego has made rapid progress. It is connected by steamer with San Francisco, 456 miles north, and by stage to all inland towns. A stage line runs to Tucson, 475 miles; Santa Fe, New Mexico, 1,075 miles. It is 14 miles north of the dividing line between Upper and Lower California, and is destined to make a city of great importance. Tropical fruit of every variety is produced in the county, and the climate is one of the finest in the world, the thermometer never falling below 40 deg. in the winter, or rising above 80 deg. in the summer. The country is well timbered and well watered, producing large crops of all kinds of grain, fruit, and vegetables. Gold, silver and tin ores have recently been discovered, which promise at this time to be very extensive and profitable. Several quartz mills have recently been erected. Three weekly papers are published at San Diego, the *Bulletin*, the *World*, and the *Union*.

On page 153 we give a fine bird's-eye view of the New City Hall of San Francisco. This magnificent edifice, with its towers, and domes, and spires, and pinnacles that point to heaven, will be the future Hotel de Ville of San Francisco, and will reflect peculiar lustre on the brain that designed it, and the citizens whose liberality has been so magnificently displayed in its creation. It is situated between Park Avenue, Larkin and McAllister streets, and is triangular in form; the ground contains about six acres, of which four will be covered by the building. The whole will be surrounded by a level terrace, which will be 11 feet high at the Hall of Records. From the terrace to the top of the parapet the height of the building will be 84 feet.

The length of each of the triangular fronts of the building will be as follows: on Park Avenue 800 feet, on McAllister street 660 feet, and on Larkin street 500 feet. The Hall of Records, wherein will be deposited the archives, etc., of the city, will be surrounded nearly altogether by an arched piazza of 136 feet, the inner diameter of the hall itself being 86 feet. The dome of this hall, which will be of the finest finish, will be 67 feet in diameter supported by twelve massy iron columns, forming a circle 56 feet in diameter, connected by arches springing from ornamental capitals at a height of 58 feet from the floor. The centre of the hall will be open to the top of the dome, giving an internal height of 120 feet, which surmounted by a pedestal and statue will raise the height to 135. The main building will enclose a central court of Atrium, 125 feet by 121 feet, which will be surrounded by elegant piazza. The grand entrance will be through a circular hall, 79 feet in diameter, with a height of 67 feet, having in front a portico of 24 feet wide. The whole will be surmounted by the grand central tower about 290 feet high, which will be visible from afar and will be a conspicuous object in the appearance of the city. The whole of this vast building will be occupied by the Municipal Chambers and by the Law Courts.

AMERICAN PROGRESS—This beautiful picture, which will be found opposite the title page, is purely national in design, and represents the United States' portion of the American Continent. The beauty and variety, from the Atlantic to the Pacific Ocean, illustrating at a glance the grand drama of Progress in the civilization, settlement, and history of this country.

In the foreground, the central and principal figure, a beautiful and charming female, is floating westward through the air, bearing on her forehead the "Star of Empire." She has left the cities of the east far behind, crossed the Alleghanies and the "Father of Waters," and still her march is westward. In her right hand she carries a book—common school—the emblem of education and the testimonial of our national enlightenment, while with the left hand she unfolds and stretches the slender wires of the telegraph, that are to flash intelligence throughout the land. On the right of the picture, is a city, steamships, manufactories, schools and churches, over which beams of light are streaming and filling the air—indicative of civilization. The general tone of the picture on the left, declares darkness, waste and confusion. From the city proceed the three great continental lines of railway, passing the frontier settlers' rude cabin and tending toward the Western Ocean. Next to these are the transportation wagons, overland stage, hunters, gold-seekers, pony-express, the pioneer emigrant and the war-dance of the "noble red man." Fleeing from "Progress," and towards the blue waters of the Pacific, which shows itself on the left of the picture beyond the snow-capped summits of the Sierra Nevadas, are the Indians, buffaloes, wild horses, bears, and other game, moving westward—ever westward—the Indians, with their squaws, paposes, and "pony-lodges," turn their despairing faces towards, as they flee from, the presence of the wondrous vision. The "Star" is too much for them.

What American man, woman or child, does not feel a heart-throb of exultation as they think of the glorious achievements of PROGRESS since the landing of the Pilgrim Fathers, on stanch old Plymouth Rock!

This picture was the design of the author of the TOURIST—is NATIONAL, and illustrates, in the most artistic manner, all those gigantic results of American brains and hands, which have caused the mighty wilderness to blossom like the rose.

PALACE HOTEL AT SAN FRANCISCO.—This monster hotel of the world, is situated in the city of San Francisco, occupying one entire block of ground, 344 by 265 feet, bounded by New Montgomery, Market, Annie and Jessie streets. It is seven stories high (115 feet,) the foundation walls are twelve feet thick, while the exterior and interior walls, range from 1½ feet to 4½ feet in thickness.

The foundation walls, at their base, are built with inverted arches. All exterior, interior and partition walls, at every five feet, commencing from the bottom of the foundation, are banded together with bars of iron, forming, as it were, a perfect iron basket work filled in with brick. The quantity of iron so used increases in every story towards the roof, and in the upper story the iron bands are only two feet apart.

The roof is of tin, the partitions of brick and the cornice of zinc and iron. The building has three courts, the centre one having an iron-framed glass covering, and is 144 by 84 feet, with a drive-way and side walk opening on New Montgomery street, forty feet wide. The two outer courts, from the basement level are each 22 by 185 feet, with two drive-ways, 20 feet wide, one from Market and Annie streets, and one from Annie and Jessie streets. These are connected by two brick-arched passage-ways,

ten feet in width, allowing ample space for a four-in-hand team to pass under and through them.

Besides the city water-works, a supply of water comes from four Artesian wells of a ten-inch bore, which have a capacity of 28,000 gallons, per hour. A reservoir is located under the centre court, capable of containing 630,000 gallons. On the roof are seven tanks, which will contain 128,000 gallons.

The hotel is supplied with two steam force-pumps for water, two additional for fire, five elevators, together with all the modern improvements, and built throughout in the most substantial manner.

MULTUM IN PARVO—On page 149 will be found a complete bird's-eye view of the city of San Francisco and its surroundings—covering a scope of country about twelve miles in diameter—showing the Golden Gate, portions of San Francisco Bay, the Pacific Ocean in the distance, and the Pier of the Central Pacific Railroad in the foreground, from whence passengers are transferred across the bay to "Frisco."

This beautiful picture has been prepared and engraved expressly for this book. It shows what the Goddess of "American Progress"—as represented by our frontispiece—has accomplished within the passed few years, and is a very appropriate illustration with which to close our Ocean to Ocean descriptions.

FALLS OF THE YELLOWSTONE—The beautiful illustration on page 90, known as the Lower Falls, and are situated in the Great National Park, a description of which will be found on page 89. These falls are nearly 400 feet high, and the cañon cliffs immediately below the falls rise from 1,500 to near 2,000 feet in height, the whole presenting a scene of indescribable beauty.

CAPE HORN—is a bold promontory, situated on the north side of the Columbia river, in Washington Territory, about midway between the Cascade Mountains and the Dalles. This promontory is of basaltic formation—like most others on the Columbia—and rises near 250 feet perpendicular from the water's edge, and extends about one mile in length, the lower part projecting several hundred feet out into the river. Cape Horn derives its name from the danger in passing it. Our illustration on page 95 represents a small party of pleasure and curiosity seekers on a pleasant afternoon, when the winds had lulled, who have successfully rounded the cape.

ROOSTER ROCK—Situated a short distance above Cape Horn, a view of which will be found on page 100, is another of the many charming scenes which are to be seen along the beautiful Columbia river.

FALLS OF THE WILLAMETTE RIVER—The scene of the illustration on page 92 represents the Falls of the Willamette River at Oregon City, Oregon, where the hills ap-

proach the river on each side, forcing the river through a deep cañon and over a fall of from 30 to 40 feet. The cliffs on either side of the river rise abruptly hundreds of feet in height, and are covered at the top and less precipitous places with a growth of evergreens. Locks are built on the Oregon city side of the river, large enough to admit the passage of boats 200 feet and 40 feet in width. Water power is also supplied from the same source of 4,000 horse powers, which is used for running woolen mills and other manufactories at Oregon city.

IN CONCLUSION, LET US SAY:

The Union and Central Pacific Railroad is the longest in world; laid the most miles of track in one day; cost the most money; passes over the broadest plains, the finest grazing lands, and the loftiest mountains, near barren deserts and the most fertile valleys. It possesses the most valuable lands, the highest bridges, the longest snow galleries, and the most numerous tunnels. It affords views of scenery the most grand: the mountains are towering and snow-capped; the chasms are deep and fearful; while the engineering skill displayed is truly wonderful. Near this road are the richest gold, silver, iron, coal, sulphur and other mines in the world. The line rises the highest into the clouds and terminates the farthest from land, over the waters, on the longest pier. It possesses the most rolling stock, and the most beautiful, costly and luxuriant drawing-room sleeping cars. On the line of the road wild game, of nearly every variety, are abundant, "like the stands on the sea-shore," from the chicken and prairie-dog to the buffalo and mammoth "grizzly" of over 2,000 pounds, while above them all, kind of oversoer floats the grand old American eagle, himself. The fish are numerous, and most delicious.

The white *actual* settlers in the country venture to rashness, are hospitable to a fault, and sanguine even in the "cap" after the "grub" fails to "pan," while their word of honor is always worth more than their bond. But the Indians—they are lazy, filthy, and too mean for fish-bait.

One would suppose by the name "Trans-Continental," that this road was built *across* the continent. It is. Yet the cars run *around* "CAPE HORN" and the *Dead Sea*, down the *Bitter* and *over the Green and Black waters*, *echoing* near the "*Devil's Slide*" and the great "*Sink*" of the Desert; descends into total *darkness*, with jets of boiling *sulphur* on either hand, and finally *through* the *DEVIL'S GATE*, but *always landing safely at the GOLDEN GATE*. Shall we land safely at the Golden Gate? Let us *hope* the gate will be *open*, that we can enter and that our troubles on earth will be at an

END.

MEMORANDA.

MEMORANDA.

MEMORANDA.

MEMORANDA.

SPECIAL DEPARTMENT.

SPECIAL DEPARTMENT AND INDEX TO ADVERTISEMENTS.

The Guide now has a world-wide and rapidly increasing circulation, is purchased by all classes, and is read in all parts of the world.

We have deemed it important to insert a condensed list of the principal Bankers, Manufacturers, Importers, Merchants and others, who are engaged in different kinds of legitimate trade throughout the United States. We admit none but those who we think are, from position, integrity and ability, worthy to be rated as First-Class, and those only who can be recommended with implicit confidence.

BANKS AND BANKERS.

DUNGAN, SHEPARD & CO., Bankers, 11 Nassau Street, N. Y., issue Bills of Exchange and Traveling Credits, available in all the Cities of the World. Interest allowed on special deposits. (See Map of Pacific Railroad.)

FIRST NATIONAL BANK OF DENVER, Colorado. Deposited and approved Depository of United States Disbursing Officers and Financial Agents of the United States. Authorized Capital, \$500,000; Paid in Capital, \$300,000; Undivided Profits, \$175,468.98. J. B. Chaffee, President; Geo. W. Cassler, Vice-President; D. H. Moffat, Jr., Cashier; Geo. W. Wall, Asst. Cashier.

MORTON, BLISS & CO., Bankers, 3 Broad Street, N. Y. Foreign Exchanges and Letters of Credit. Negotiate First-Class Railway, City and State Loans; make Telegraphic Transfers.

JOHN HICKLING & CO., 79 Broadway, N. Y., Bankers and Brokers, and Publishers of the WALL STREET REVIEW. (See Advertisement on Map of Trans-Continental Railroad Route.)

BOTTLE TUNERS.

PROSSER, THOMAS & SON, 15 Gold Street, New York (See Map of Pacific Railroad).

COMBAGE, TWINE AND BUCK,

LAWRENCE & SONS, HENRY, Manufacturers of Manilla, Gum, Jute and Tinned Cordage, Oakum, etc., and Dealers in Hemp. Office, 192 Front Street, near Fulton, New York.

CRUCIBLES (Black Lead.)

JOSEPH DIXON, Black Lead Crucibles. (See Time-Table Map Pacific Railroad).

GLASS WARE.

BRICE, WALKER & CO., Manufacturers of Table, Lamp and Potteryware Flint, Crystal and Pearl Glass Ware, Pittsburgh, Pa.

GOLD CHAINS.

ROBINSON, P. E. & CO., (See Map of Pacific Railroad).

INDIA RUBBER GOODS.

GOODYEAR RUBBER CO., 363 Broadway, New York; 106 and 107 Madison Street, Chicago; 400 North Fourth St., St. Louis; 607 Market St., San Francisco. F. M. Shipard, President; J. A. Minott, Secretary.

LANDS.

UNION PACIFIC CO.'S (See Map of World).

CENTRAL PACIFIC CO.'S. (See Time-Table Pacific R.R.)

LEAD PENCILS.

AMERICAN LEAD PENCIL COMPANY, Office, 443 and 455 Broadway, New York. The best Pencil manufactured. Ask your Stationers for them.

DIXON'S AMERICAN GRAPHITE. (See Time-Table Pacific Railroad).

MILLER'S PLATINUM, RUPEES AND COPIERS.

MOSS AGATES.

This beautiful Stone is found near Cheyenne, Wyoming Territory, and mounted with 18 karat gold, by Joslin & Park. Send for Price List and Information. (See Time-Table Pacific Railroad).

OCEAN STEAMSHIPS.

CUNARD LINE, between New York, Boston, Liverpool and Havre. Sailing twice a week. C. G. Frenchlyn, Agent, 4 Bowling Green, New York. (See Map of Pacific R. R.)

INMAN LINE, New York, Queenstown and Liverpool. (See Map of Pacific Railroad).

OILS.

DEVOE MANUFACTURING CO., (See Map of Pacific Railroad).

PAINTS, OILS AND VARNISHES.

PENNSYLVANIA WHITE LEAD WORKS, Pittsburgh, Penn. Fabnestock, Hazlet & Schwartz. Established 1844. Formerly B. A. Fabnestock & Co., White Lead, Red Lead, Colors and Linseed Oil.

RAILROADS.

MICHIGAN CENTRAL AND GREAT WESTERN. (See Map of World).

CHICAGO, BURLINGTON AND QUINCY. (See Map of Pacific Railroad).

CHICAGO AND NORTH-WESTERN R.R. (See Second Page).

CHICAGO AND ROCK ISLAND R.R. (See Time-Table Pacific Railroad).

SEWING MACHINES.

SINGER MANUFACTURING CO. (See Map of World).

WHEELER & WILSON CO. (See Map Pacific Railroad).

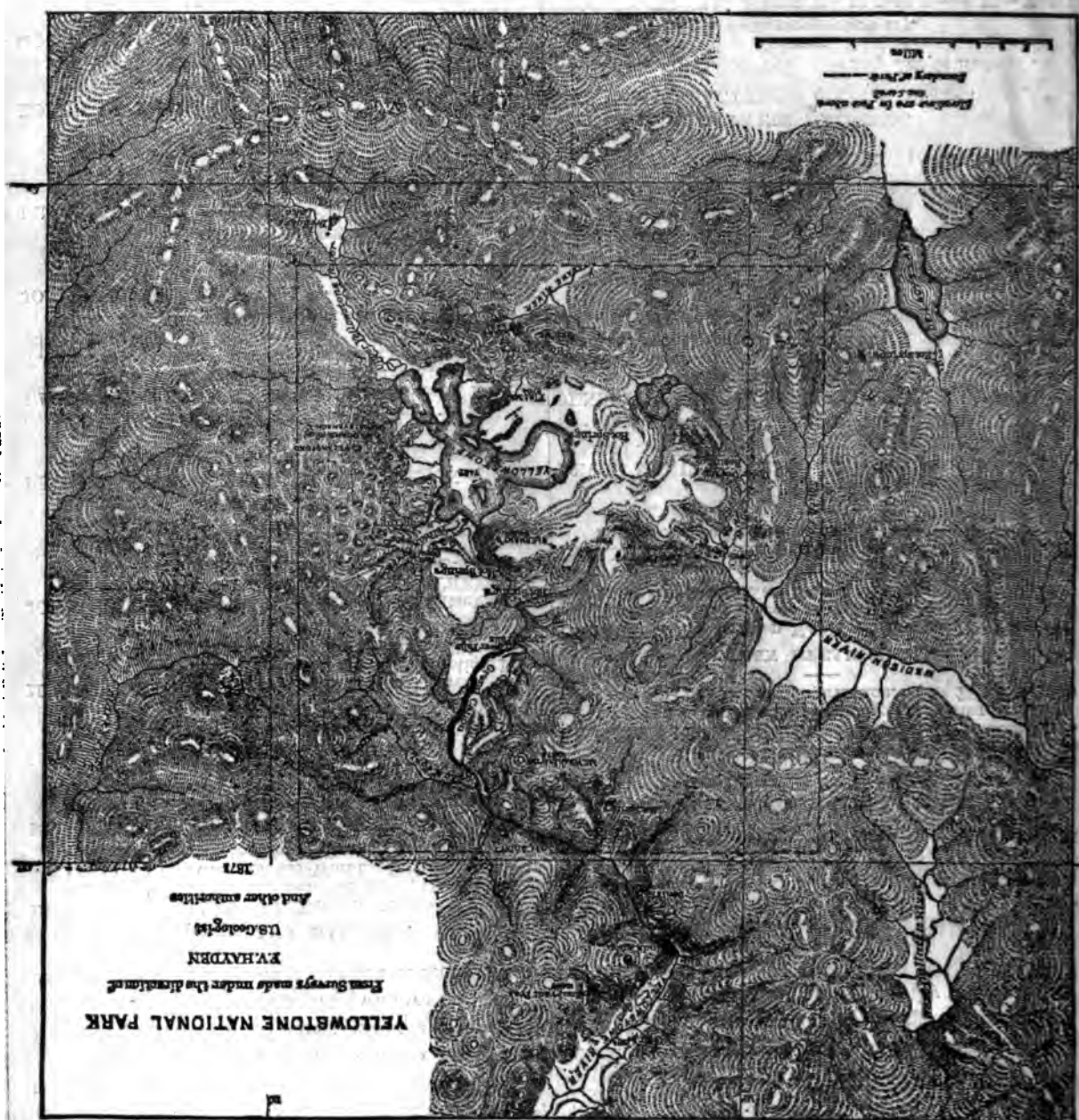
STEEL, (Importers of.)

PROSSER, THOMAS & SON, No. 15 Gold Street, New York. Representatives of Fried Krupp, Essen, Rheinish Prussia.

(See Map of Pacific Railroad).

THOMAS, AXLES AND SPRINGS.

"KRUPPS," THOMAS, PROSSER & CO. (See Map of Pacific Railroad).



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